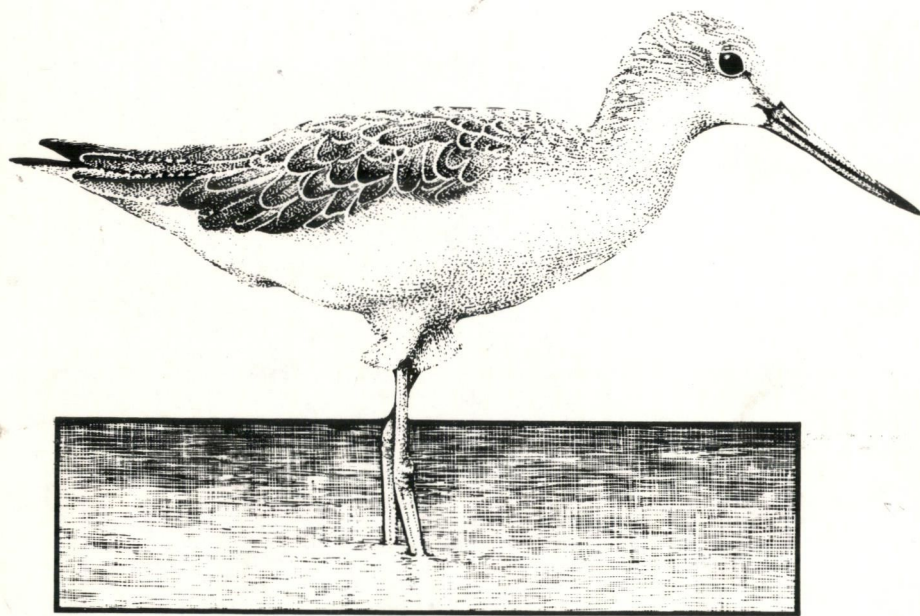


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# Birds of the Pilbara Region, Western Australia

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G. M. Storr



Records of the Western Australian Museum  
Supplement No 16. 1984

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**Birds of the Pilbara Region,  
Western Australia**

**G. M. Storr**

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## TABLE OF CONTENTS

	Page
Abstract .....	7
Introduction.....	7
Annotated List.....	9
Gazetteer.....	61
Index to Families .....	63

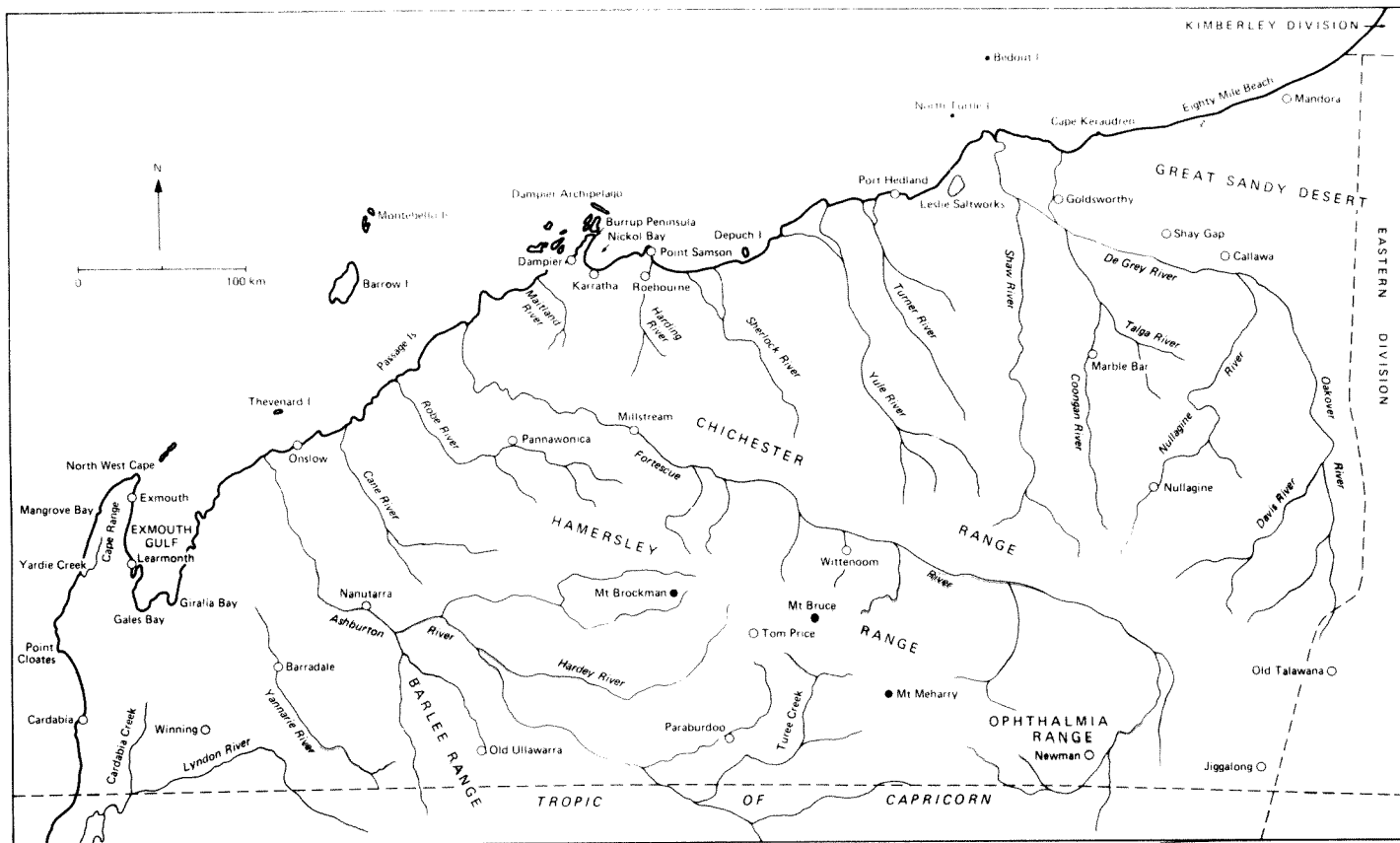


Figure 1: Map of Pilbara region, Western Australia.

## ABSTRACT

This paper is essentially an annotated list of the 284 species of birds recorded from the Pilbara, in the arid north-west of Western Australia.

## INTRODUCTION

This is the third in a series of regional avifaunas covering Western Australia. The first dealt with the Kimberley Division (Storr 1980, *Spec. Publs West. Aust. Mus.* No. 11), and the second with the north-eastern interior of the State (Storr 1981, *Rec. West. Aust. Mus.* 9: 65-99). The scope of the present work is the same as the earlier papers, i.e. information is given for each species on local distribution, ecological status, relative abundance, habitat preferences, breeding season (defined by the months in which eggs are laid), clutch size (prefixed by C for eggs and nestlings, B for broods that have left the nest but are still dependent), and movements. Taxonomic references cited in my earlier papers, including these dealing with the Northern Territory and Queensland, are not repeated herein.

The Pilbara region is here defined as that part of the North-west Land Division lying to the north of the Tropic of Capricorn (Fig. 1). Physiographically it can be divided into seven major types:

- (1) the coastal plains, usually wide but narrow on the North West Cape peninsula and in the central part of the north-west coast (between Peawah Hill and the Burrup Peninsula) where the rocky hills, characteristic of the interior, reach the sea;
- (2) the moderately elevated interior (up to 1250 m), consisting partly of peneplains and partly of rugged hills composed of Precambrian rocks;
- (3) the Cape Range, a heavily-dissected limestone plateau on the North West Cape peninsula, up to 315 m high;
- (4) the broad valleys of the larger rivers, e.g. the DeGrey, Fortescue and Ashburton, which in effect extend the coastal plains deep into the interior;
- (5) the Great Sandy Desert, whose extreme western fringe occupies the far north-east of the region;
- (6) sandstone islands, namely the Montebello Group, Barrow Island and its satellites, many islands in the Passage Group and off Onslow, and Legendre Island in the Dampier Archipelago, which are low flat masses of aeolian sandstone typically with undercut cliffs (most of the other islands in the Dampier Archipelago are higher, more rugged and, like the neighbouring Burrup Peninsula, composed of Precambrian rocks); and
- (7) low sandy islands, e.g. Bedout, North Turtle, several cays in the Passage Group and off Onslow, and Frazer, which provide breeding sites for colonial surface-nesting seabirds.

The region lies entirely within the arid zone, mean annual rainfall ranging from 23 cm in the lower parts of the Ashburton valley to about 40 cm in the highest parts of the Hamersley Range. Most rain falls in summer (December-March), except along a narrow strip down the west coast south of North West Cape where rain from winter showers exceeds that from summer thunderstorms and tropical cyclones. This coastal strip is also notable for its relatively cool summers.

The vegetation of the coastal plains consists mostly of sparsely wooded grasslands (mainly *Triodia*, but also *Cenchrus* spp. and other soft grasses), alternating with galleries of river gums (*Eucalyptus camaldulensis*), alone or mixed with *Melaleuca leucadendron*, *Sesbania formosa*, *Erythrina vespertilio* and *Ficus orbicularis*. Certain shrubs and low trees, such as *Acacia pyrifolia*, *Grevillea pyramidalis* and *Hakea suberea*, are common but seldom dense enough to form thickets. In the far north-east, *Melaleuca-Acacia* scrubs (the south-western remnants of the Kimberley pindan) extend in a narrow strip behind the coastal dunes nearly to the DeGrey. Estuaries, tidal creeks and sheltered coasts are lined with mangroves, chiefly *Avicennia marina*, *Rhizophora stylosa*, *Ceriops tagal* and *Bruguiera exaristata*.

In the interior the low hills and undulating plains north of the Chichester Range are almost as sparsely wooded as the coastal plains. Further south there are extensive tracts of mulga (*Acacia aneura*) and eucalypt woodlands (*E. microtheca*, *E. dichromophloia*, *E. brevifolia* etc.), and the smaller watercourses are often lined with wattles (especially *Acacia citrinoviridis*) and shrubby melaleucas. The country south of the Fortescue is consequently much richer in thicket-loving birds than the country further north.

Because of the low rainfall and brief wet season, watercourses flow for only short periods. Surface water, however, is fairly plentiful owing to the frequency of river pools and waterholes; and in most areas there are stock-watering troughs. The sewage ponds recently established at towns servicing the iron-ore industry provide a wet-land habitat type that is otherwise scarce in the region. The saltwork ponds east of Port Hedland and south-west of Dampier are extremely attractive to waders and fish-eating birds.

This paper is based on the collections of the Western Australian Museum, the literature (especially papers by T. Carter, G. F. Mees, F. L. Whitlock, A. H. Robinson, E. Lindgren, E. Hartert and I. Abbott) and the unpublished data of many naturalists, especially R. E. Johnstone, L. A. Smith, J. R. Ford, G. M. Storr, W. H. Butler, P. J. Fuller, N. Kolichis, T. E. Bush, T. C. Allen, J. A. Smith, R. P. Jaensch, P. de Rebeira, G. P. Whitley, K. G. Buller, I. C. Carnaby, M. Sawle, A. Chapman, H. Esler, J. C. Darnell and M. Howard. I am grateful to N. Kolichis and R. E. Johnstone for criticism of the manuscript.

## CASUARIIDAE

*Dromaius novaehollandiae novaehollandiae* (Latham) Emu  
Range. Greater part of region, but not waterless sandy deserts.

Status etc. Nomadic, e.g. a bird banded at Mileura recovered six months later at Warroora, 500 km to north-west. Moderately common on grassy, lightly wooded, loamy, coastal or riverine plains; scarce in mountainous country. Breeding late April-early June; C/7(1), 8(2), 9(1), 11(1).

## PODICIPEDIDAE

*Podiceps novaehollandiae novaehollandiae* Stephens Black-throated Grebe  
Range etc. Visitor (all months) to greater part of region, occasionally breeding. Uncommon; usually in ones or twos, but up to 84 birds recorded at Tom Price Sewage Works. Sewage ponds, river pools, and flooded claypans. Breeding reported at Millstream and Paraburdoo: January-February.

*Podiceps poliocephalus* Jardine and Selby Hoary-headed Grebe  
Range etc. Non-breeding visitor (all months) to greater part of region. Scarce; usually in ones or twos, but up to 50 birds recorded at Tom Price Sewage Works and on marshes east of Sandfire. Mainly fresh waters (sewage ponds, river pools, flooded claypans); also inundated samphire flats, tidal creeks, sheltered seas and saltwork ponds.

*Podiceps cristatus australis* Gould Great Crested Grebe  
One record: one seen by P. de Rebeira at Carawine Pool, Oakover River, on 26 September 1978.

## DIOMEDEIDAE

*Diomedea chlororhynchos* Gmelin Yellow-nosed Albatross  
Range etc. Moderately common visitor (May-November) to far south-western seas, north to 22°40'S.

## PROCELLARIIDAE

*Macronectes halli* Mathews Northern Giant Petrel  
Status. Giant petrels are rare visitors (March-December) to south-western seas, but only one specimen has been identified to species, namely an *M. halli* banded as a nestling on Macquarie I. and found dead 14 months later on Mandu Mandu Beach (*Corella* 6: 125).



*Daption capense* (Linnaeus) Cape Petrel

Range etc. Uncommon visitor (July-September) to south-western seas, north to 21°S.

*Pterodroma lessonii* (Garnot) White-headed Petrel

One record: one seen by G. M. Storr off Delambre I. on 2 June 1962.

*Pterodroma mollis mollis* (Gould) Soft-plumaged Petrel

One record: two separate birds seen by R. Pocklington (1967, *Emu* 67: 135) on 25 July 1965, the more northerly at 21°31'S, 113°20'E[ca 60 km WNW of North West Cape.]

[*Bulweria bulwerii* (Jardine and Selby) Bulwer's Petrel

One record: seven birds reported (but not described) by P. Harrison (1979, *Aust. Seabird Group Newsl.* No. 12: 35) off north-west coast on 5 November 1978, the nearest to land 200 km west of North West Cape.]

*Puffinus pacificus* (Gmelin) Wedge-tailed Shearwater

Range etc. Very common visitor to seas west of 118°E, arriving in mid-August and nesting in great numbers on several of the Passage Is and in smaller numbers elsewhere, and leaving in April. All-dark shearwaters, presumably of this species, occasionally seen in June and July. Breeding on the Forestier Is (Sable), island off Cape Lambert (Bezout), Dampier Archipelago (Elphick Nob, Malus, Kendrew, Goodwyn), Passage Is (North East Regnard, Fortescue, Sholl, Round, Long, Solitary, North Sandy, Great Sandy), Lowendal Is, islands off Barrow I. (Mushroom, Double, Boodie), islands off Onslow (Airlie, Bessieres, Serrurier, North Muiron, South Muiron, Locker): late October-early November; C/1 (invariably).

*Puffinus huttoni* Mathews Hutton's Shearwater

Range etc. Common in passage over far south-western seas. During visits in late July and early August 1978 and 1979 S. A. Halse (1981, *Emu* 81: 42) observed thousands flying southwards outside the Ningaloo Reefs, i.e. 5 km offshore in 22°30'S. On 9 September 1945 G. P. Whitley (MS biologist's log, MV 'Isobel') saw in the same area a small flock of petrels with 'white breast, long black bill and black head'; they possibly belonged to this species.

*Puffinus assimilis assimilis* Gould Little Shearwater

One record: an exhausted bird (WAM A14726) found at Exmouth on 7 June 1977.

## OCEANITIDAE

*Oceanites oceanicus* (Kuhl) Wilson's Storm Petrel

Range etc. Common winter visitor and passage migrant (May-November) to all seas, including those partly enclosed by the Dampier Archipelago.

*Oceanites marinus dulciae* (Mathews) White-faced Storm Petrel  
One record from far south-west: a beach derelict found by T. Carter (1904, *Emu* 3: 208) at Point Cloates on 31 July 1894.

*Oceanodroma matsudariae* Kuroda Matsudaira's Storm Petrel  
Status uncertain; perhaps a regular visitor to northern seas well offshore. Two records: one and two birds seen by R. Pocklington (1967, *Emu* 67: 135) ca 200 km NNW of the Dampier Archipelago on 26 July 1965; and one landed on a ship ca 100 km off the Montebello Is on 25 September 1968 (Serventy & Whittell 1976, *Bds West. Aust.*, p. 103).

### PHAETHONTIDAE

*Phaethon rubricauda* Boddaert Red-tailed Tropic-bird  
Two records: one reported off North Sandy I. on 23 May 1978 (I. Abbott 1979, *Corella* 3: 95); and one shot by T. Carter (1904, *Emu* 3: 211) at Point Cloates on 23 April 1891, the only one he had seen.

### PELECANIDAE

*Pelecanus conspicillatus* Temminck Australian Pelican  
Range. Throughout the region.  
Status etc. Nomadic (e.g. runners banded on North Turtle I. and Mulga Downs have been respectively recovered at Elliott, N.T., and Mandurah, W.A.; and a runner banded on Pelican I., Shark Bay, was recovered near Goldsworthy). Common. River pools, estuaries, tidal creeks, sheltered seas (as far offshore as the Montebello Is), inundated sapphire flats and saltwork ponds. Breeding on North Turtle I., Little Rocky I. and small island in Exmouth Gulf, and on mainland at Mulga Downs: March-July (and possibly earlier - see N. Kolichis 1977, *West. Aust. Nat.* 13: 193); C/2 (mostly), 3 (occasionally).

### SULIDAE

*Sula bassana serrator* (Gray) Gannet  
One record from far south-west: a beach derelict found at Point Cloates by T. Carter (1904, *Emu* 3: 211) on 30 September 1901.

*Sula dactylatra personata* Gould Masked Booby  
Range etc. Scarce and confined to vicinity of Bedout I., where a few hundred pairs nest. Breeding March-May and October; C/1 (occasionally), 2 (mostly), 3 (rarely).

*Sula leucogaster plotus* (Forster)

Brown Booby

Range. North-eastern seas, west to Barrow I. and Withnell Bay.

Status etc. Common. Mainly open seas; occasionally partly enclosed waters. Breeding in thousands on Bedout I.: March-October; C/1 (occasionally), 2 (mostly), 3 (very rarely); only one young reared.

## PHALACROCORACIDAE

*Phalacrocorax sulcirostris* (Brandt)

Little Black Cormorant

Range. Ordinarily coastal and near-coastal areas between the DeGrey and the Yannarie, inland to the Talga, the upper Shaw (Hillside), the middle Fortescue (Millstream) and the middle Ashburton (Ashburton Downs); casual further inland (Tom Price and Paraburdoo sewage works) and in south-west (claypans 40 km inland from Point Cloates).

Status etc. Uncommon; usually single or in small flocks (up to 80). River pools and saltwork ponds.

*Phalacrocorax carbo novaehollandiae* Stephens

Great Cormorant

Range etc. Rare visitor (usually single) to large pools on lower courses of larger rivers, viz. the DeGrey, Yule, Fortescue and Ashburton.

*Phalacrocorax varius* (Gmelin)

Pied Cormorant

Range. Most coasts east to Cape Keraudren, and as far offshore as the Montebello Is.

Status etc. Moderately common in western seas; uncommon east of 118°E. Mainly open but sheltered seas; also tidal creeks and saltwork ponds. Breeding on North Turtle I., rocky islet off north-east coast of Barrow I., sandy cay near North Sandy I., Mary Anne Reef and Frazer I.: April-July; C/1-5 (mostly 3 or 4).

*Phalacrocorax melanoleucos melanoleucos* (Vieillot)

Little Pied Cormorant

Range. Greater part of region, north to the DeGrey and east to the Oakover, but not recorded from south-west (south and west of the Yannarie).

Status etc. Moderately common on coastal plains; uncommon in interior. Mainly river pools; occasionally sewage and saltwork ponds. Breeding singly or in small colonies in trees around river pools: August (only one dated report).

*Anhinga melanogaster novaehollandiae* (Gould)

Darter

Range. Greater part of region, north to Cape Keraudren and east to the Oakover.

Status etc. Moderately common; in ones or twos. Mainly river pools; also mangrove creeks. One breeding report: March; C/4.

## FREGATIDAE

### *Fregata ariel* (Gray)

Lesser Frigatebird

Range. Ordinarily eastern coasts and seas, from Mandora Creek west to the Dampier Archipelago; accidental further south and inland.

Status etc. Moderately common; in ones, twos or small parties. Sheltered seas, including tidal creeks. During tropical cyclones (January-March) observed at Shay Gap (65 km inland) and as far south as Point Cloates. Many hundreds breeding on Bedout I.: March-August; C/1 (invariably).

## ARDEIDAE

### *Ardea pacifica* Latham

Pacific Heron

Range. Throughout the mainland.

Status etc. Moderately common visitor; usually single or in small parties on river pools, claypans and sewage ponds; occasionally in much larger aggregations, e.g. some hundreds in autumn on inundated samphire flats east of Sandfire. A few breeding reports (one dated): ca September.

### *Ardea novaehollandiae* Latham

White-faced Heron

Range. Throughout the region, including islands (as far offshore as Barrow).

Status etc. Moderately common visitor (more widespread and perhaps a little more numerous than *A. pacifica*); usually in ones or twos, occasionally in small parties (up to 10). River pools, sewage ponds, bore overflows and roadside puddles; less commonly salt waters (tidal creeks, beaches, sheltered reef flats, saltwork ponds). A few breeding reports (two dated): July-August.

### *Egretta alba alba* (Linnaeus)

Great Egret

Range. Throughout the mainland.

Status etc. Moderately common visitor; usually single or in small parties, occasionally larger aggregations (up to 60). River pools, claypans, sewage ponds, samphire swamps (inundated by rain or high tides), mangrove creeks and saltwork ponds. Breeding on the floodout of the upper Fortescue at Mulga Downs.

### *Egretta intermedia* (Wagler)

Intermediate Egret

Range etc. Rare autumn-winter visitor to north-east (the lower DeGrey and vicinity).

### *Egretta garzetta nigripes* (Temminck)

Little Egret

Range. Coasts south to Mangrove Bay; casual inland.

Status etc. Uncommon; single or in small parties. Mainly mangrove creeks, tidal mud flats and saltwork ponds; occasionally pools on lower courses of rivers (DeGrey, Yule, Harding, Lyndon) and flooded samphire flats (east of Sandfire).

*Egretta sacra* (Gmelin)

Eastern Reef Heron

Range. Coasts north to Mandora Creek and as far offshore as Trimouille, Legendre and Bedout Is.

Status etc. Common; usually in ones or twos, occasionally small parties (up to 6). Mangrove creeks, tidal mud and reef flats, rocky shores and saltwork ponds. Breeding August (? July)-January; C/2(25), 3(6), 4(2). Everywhere grey phase predominant; on Barrow I. frequency of white phase 29% (L. A. Smith and E. H. Sedgwick obtaining this estimate respectively in 1973 and 1976); on far south-west coast frequency of white phase also relatively high (judging from T. Carter's observations between Yardie Creek and Point Maud); elsewhere white birds averaging only 14% of population.

*Egretta ibis coromanda* (Boddaert)

Cattle Egret

Range etc. Very rare visitor. Recorded at Sandfire (one in July 1978), Goldsworthy, Mt Edgar (two in May 1961) and Millstream (one in 1949).

*Butorides striatus stagnatilis* (Gould)

Mangrove Heron

Range. Coasts from Mandora Creek south-west to Yardie Creek; also Dolphin and Barrow Is.

Status etc. Common; usually single, occasionally in small parties (up to 6). Mangrove creeks and adjacent tidal mud and rock flats; occasionally saltwork ponds. Breeding August-October; C/2(5), 3(3).

*Nycticorax caledonicus hilli* Mathews

Rufous Night Heron

Range. Greater part of region, north to Mandora Creek and inland to the Oakover (Tooncoonaragee Pool) and Weeli Wolli Spring; also Barrow I.

Status uncertain; perhaps an uncommon resident with numbers substantially augmented by winter visitors and passage migrants. Usually single or in small parties (up to 6) at forested river pools and mangrove creeks. Outside these generalisations were 250 birds in flooded samphire east of Sandfire in late March and early April 1982; more than 20 birds feeding on evening of 18 September 1975 at a small pool full of eels and other fish by the Leslie Salt pumping station; two adults in a cave on Ephick Nob on 25 and 26 January 1981; flock of 11 adult birds in Barrow I. mangroves on 23 August 1976; and one in a waterless mallee thicket inland from Point Cloates.

*Ixobrychus flavicollis* (Latham)

Black Bittern

Range etc. Rare (or rarely reported) inhabitant of dense riverside forests; recorded on the Harding (Lockyer Pool), at Millstream, and on Wackilina Creek (31 and 32 km W of Mt Brockman HS). One breeding report (Millstream): ca September; C/2.

## CICONIDAE

*Ephippiorhynchus asiaticus* (Latham) Black-necked Stork  
Range. Northern coasts and near-coastal waters, from Mandora Creek south-west to the Ashburton estuary.

Status etc. Formerly very rare and perhaps only a vagrant from Kimberley, but gradually increasing in last 30 years and now a moderately common resident; usually in ones or twos. River pools, tidal creeks and mudflats, and saltwork ponds. Breeding south to Cape Preston: April; C/2(2), 3(1).

## THRESKIORNITHIDAE

*Threskiornis aethiopicus moluccus* (Cuvier) Sacred Ibis  
Range etc. Rare visitor to north-eastern coasts and near-coastal waters, west to the lower Maitland; usually single, occasionally in small parties. Mainly mangrove creeks and adjacent mud flats; also saltwork ponds, sewage ponds, river pools and freshwater soaks.

*Threskiornis spinicollis* (Jameson) Straw-necked Ibis  
Range. Greater part of region, inland to Callawa, Mt Edgar and Newman.  
Status etc. Highly nomadic, e.g. a 'runner' banded near Gingin recovered eight months later on the Yannarie. Ordinarily an uncommon visitor, in ones, twos or small parties; occasionally irrupting in flocks of many hundreds, e.g. at inundated samphire east of Sandfire in autumn 1982, on Cardabia Creek in spring 1900, and at Point Cloates and southwards ca 1892. River pools, sewage ponds and ephemeral waters. Occasionally breeding at Cardabia Creek and Mulga Downs: ca August-October and ca February.

*Plegadis falcinellus* (Linnaeus) Glossy Ibis  
Status etc. Rare visitor; in small parties (up to 15). Sewage ponds, river pools, freshwater soaks and flooded samphire.

*Platalea regia* Gould Royal Spoonbill  
Status etc. Rare visitor; single or in small parties (up to 11). Saltwork ponds and river pools.

*Platalea flavipes* Gould Yellow-billed Spoonbill  
Status etc. Rare visitor; single or in small parties (up to 5). River pools. Said to breed on the floodout of the upper Fortescue (Mulga Downs).

## ANATIDAE

### *Anseranas semipalmata* (Latham)

Pied Goose

Status. Infrequent visitor (presumably a drought-refugee from further north), appearing in small numbers in three years: on the beach at Maud Landing in September 1892; on the lower Ashburton and flooded claypans near Winning in 1900; and at Lowendal I., Roebourne, Millstream, the upper Sherlock, Coolawanyah and Hamersley in August-December 1952.

### *Dendrocygna arcuata* (Horsfield)

Chestnut Whistling Duck

One record: one seen by J. R. Ford at the Tom Price sewage works on 18 July 1983.

### *Dendrocygna eytoni* (Eyton)

Plumed Whistling Duck

Range. Coasts and coastal plains, including the Dampier Archipelago (Rosemary, Enderby).

Status etc. Uncommon visitor; in small flocks (up to 40). Flooded claypans and samphire flats, river pools, freshwater soaks and beaches. One breeding report: a 'flapper' attended by two adults near Sandfire on 26 March 1982.

Before the degradation of coastal and riverine grasslands this duck was much more numerous and widespread. In 1861 F. T. Gregory observed a large flock near the confluence of the Oakover and Nullagine Rivers; in 1900 and other wet years T. Carter saw them in 'countless numbers' on the flooded flats east of Point Cloates; and in 1922 F. L. Whitlock was informed that they used to visit Millstream.

### *Cygnus atratus* (Latham)

Black Swan

Range. Greater part of region, north to the Port Hedland district (Leslie Salt) and inland to the Nullagine (Pelican Pool), the Oakover (Running Waters) and Coondiner Pool; vagrant on Barrow I.

Status etc. Formerly a scarce visitor, occasionally breeding in south-west. Now an uncommon visitor; usually in small parties, sometimes flocks (up to 150); occasionally breeding in north and east of region. River pools, flooded claypans and samphire flats, and sewage and saltwork ponds. Breeding April-July: C/6(1), 7(1).

### *Stictonetta naevosa* (Gould)

Freckled Duck

One record from extreme south-west: a small flock seen by T. Carter at Cardabia Pool on 23 July 1900; one of these birds was received by the West. Aust. Museum.

### *Tadorna tadornoides* (Jardine and Selby)

Mountain Duck

Status etc. First recorded in 1959 (by E. Lindgren at Jiggalong in extreme south-east of region). During several visits in 1959-62 G. M. Storr saw only one bird. Since the mid-1970s it has been reported more frequently and can now be classified as a scarce visitor, single or in small parties (up to 10). Sewage and saltwork ponds, river pools and flooded claypans and samphire flats.

*Anas superciliosa* Gmelin Black Duck

Range. Throughout the region.

Status etc. Uncommon visitor, occasionally breeding; usually in ones, twos or small parties, sometimes flocks (up to 82). River pools, sewage ponds, flooded claypans and samphire flats, and roadside puddles. Breeding January-February and June-August.

*Anas gibberifrons gracilis* Buller Grey Teal

Range. Throughout the mainland; vagrant on Barrow I.

Status etc. Common visitor, often breeding; usually in flocks (up to 226). River pools, flooded claypans and samphire flats, sewage ponds, floodwaters and other ephemeral waters (filled borrow pits and bulldozer scrapes); rarely salt waters (saltwork ponds and tidal creeks). Breeding from February to October; B/5(1), 7(3), 8(3), 9(1).

*Anas castanea* (Eyton) Chestnut Teal

Range etc. Formerly resident at Mangrove Bay on upper west coast. In June 1902 T. Carter (1902, *Emu* 2: 80) saw a large flock here, but in August 1916 he only found one pair (Carter 1920, *Ibis* (11) 2: 703).

*Anas rhynchos rhynchos* Latham Blue-winged Shoveler

Four records: one reported by T. Carter (1904, *Emu* 3: 212), one collected at Roebourne on 7 August 1944, one seen by W. H. Butler on Whyjabby Pool (lower Maitland River) on 10 January 1979, and one seen by J. C. Darnell at the Goldsworthy sewage ponds on 4 March 1977.

*Malacorhynchus membranaceus* (Latham) Pink-eared Duck

Range etc. Now an uncommon visitor to many parts of region; usually in pairs or small parties, sometimes flocks (up to 250). Sewage and saltwork ponds, flooded claypans and samphire flats, and river pools; occasionally sheltered seas, e.g. Port Hedland harbour. Before the recent establishment of sewage ponds and saltworks, there were very few reports of this duck.

*Aythya australis* (Eyton) Hardhead

Range. Throughout the mainland.

Status etc. Uncommon visitor; in ones, twos or flocks (up to 100). River pools, flooded samphire, and sewage ponds.

*Chenonetta jubata* (Latham) Wood Duck

Range. Greater part of region, north to the DeGrey and east to the Oakover and Jiggalong; accidental on Barrow I.

Status etc. Uncommon visitor, seldom breeding; usually in pairs or small flocks (up to 30). River pools, flooded claypans, sewage ponds, bore overflows and other ephemeral waters. Breeding reported at Hooley and Jiggalong: ca August.



*Nettapus pulchellus* Gould Green Pygmy Goose  
Status. Rare visitor. Two records: small parties seen by F. T. Gregory on the Sherlock River in July 1861; and a pair seen by M. Sawle on Waranoolar Pool, Harding River, from 30 July to 1 August 1982.

*Oxyura australis* Gould Blue-billed Duck  
One record: five birds seen by J. A. Smith on the Paraburdoo sewage ponds on 24 November 1974.

*Biziura lobata* (Shaw) Musk Duck  
One record from extreme south-west: one seen on Cardabia Pool by T. Carter (1904, *Emu* 3: 212).

### ACCIPITRIDAE

*Elanus caeruleus notatus* Gould Black-shouldered Kite  
Range. Throughout the region, including the Dampier Archipelago (Legendre, West Lewis) and Trimouille, Airlie and Bessieres Is.  
Status etc. Uncommon to moderately common visitor, frequently breeding in far south; usually single, occasionally in twos, rarely small parties. Lightly wooded country, especially coastal plains; in Dampier Archipelago attracted to warrens of *Rattus tunneyi*. Breeding north to the lower Ashburton, Ullawarra and the upper Fortescue: August; C/3(2), 4(1).

*Elanus scriptus* Gould Letter-winged Kite  
Status. Rare and infrequent visitor, recorded in two years. I. C. Carnaby saw three pairs at Learmonth in 1943 and found two nests. D. L. Serventy and others saw four single birds and a pair at Abydos, Hooley, Coolawanyah and between Roebourne and Onslow in October 1951.

*Hamirostra melanosternon* (Gould) Black-breasted Kite  
Range. Greater part of region, north to Mundabullangana and east to Roy Hill; also Rosemary, the Montebello and Barrow Is.  
Status etc. Uncommon on south-western coasts and coastal plains, rare elsewhere; usually single, occasionally in twos. Sparsely wooded plains and coastal dunes. One breeding report (Balfour Downs): late August; C/2.

*Haliastur indus girrenera* (Vieillot) Brahminy Kite  
Range. Most coasts from Mandora Creek south-west to Yardie Creek; also Depuch I., Jarman I., Dampier Archipelago (Legendre, Dolphin, Angel, Rosemary, West Lewis), Montebello Is, (Trimouille, Hermite) and Barrow I. (including Double and Boodie).

Status etc. Moderately common; usually single, occasionally in twos, rarely small

parties (up to 5). Mostly in and near mangroves. Breeding June-early September; C/1(3), 2(13).

*Haliastur sphenurus* (Vieillot) Whistling Kite

Range. Greater part of region, including the Dampier Archipelago (Legendre, West Lewis, Enderby), Montebello Is and Barrow I., but not sandy deserts.

Status etc. Common; in ones, twos or small parties. Wooded country in vicinity of water (including mangroves); also main roads (where attracted to dead kangaroos) and occasionally saltwork ponds. Breeding March-September; C/2(17), 3(1).

*Milvus migrans affinis* Gould Black Kite

Range. Greater part of region, but not sandy deserts.

Status etc. Ordinarily a scarce to uncommon visitor (mainly in winter), sometimes breeding; usually single, occasionally in small parties (up to 14). Irrupting in thousands in some years (1900, 1952, 1978); a large exodus in 1979 but numbers still relatively high until late 1981. Lightly wooded country; attracted to grasshopper plagues, garbage, sewage and road-kills. Breeding April-early August; C/2 (usually), 3 (occasionally).

*Accipiter fasciatus fasciatus* (Vigors and Horsfield) Brown Goshawk

Range. Throughout the mainland.

Status etc. Mainly a non-breeding visitor. Moderately common in autumn and winter, scarce in spring and summer; usually single, occasionally in twos. Well-wooded country, especially about watercourses; also mangroves and tall mulga woodland. One breeding report from far south-east (Ethel Creek): July; C/2.

*Accipiter cirrocephalus cirrocephalus* (Vieillot) Collared Sparrowhawk

Range. Throughout the region, including Depuch I.

Status etc. Uncommon to moderately common (possibly a small influx in winter); usually single, occasionally in twos. Well-wooded country, especially about water; also *Terminalia* thicket and mulga woodland.

*Aquila morphnoides morphnoides* Gould Little Eagle

Range. Greater part of region north nearly to Wallal, including Depuch I. but not sandy deserts.

Status etc. Uncommon to moderately common; in ones or twos. Favouring well-wooded country in vicinity of water; occasionally attracted to road-killed kangaroos. Breeding July-September; C/1(4), 2(1).

*Aquila audax* (Latham) Wedge-tailed Eagle

Range. Greater part of region, but not sandy deserts.

Status etc. Moderately common on sheep stations and about main roads (where attracted to road-kills), scarce elsewhere; usually in ones or twos. Breeding late May-early July; C/1 (usually), 2 (occasionally).

*Haliaeetus leucogaster* (Gmelin)

White-breasted Sea Eagle

Range. Most coasts north to Cape Keraudren, including \*North Turtle I., Depuch I., Jarman I., Dampier Archipelago (Legendre, Gidley, \*Dolphin, Angel, Rosemary, Enderby), Montebello Is (\*Trimouille, Hermite, \*small rocky islet), Barrow I. (including \*Double and \*Boodie), Passage Is (Passage, North Sandy, \*Great Sandy) and islands off Onslow (\*Airlie, Thevenard, Direction, Bessieres); casual inland.

Status etc. Moderately common; usually in ones or twos. Sheltered seas, tidal creeks, estuaries and saltwork ponds; occasionally visiting freshwater pools on lower reaches of rivers, very rarely reported on upper reaches; also feeding on young wallabies on islands and allegedly on lambs on mainland. Breeding mainly on islands (reports from those asterisked above) and formerly on south-western mainland at Qualing Pool, Mangrove Bay, Yardie Creek, Point Cloates and Point Maud: June (? late May)-early August; C/2(14).

*Circus assimilis* Jardine and Selby

Spotted Harrier

Range. Throughout the region, including Jarman, Legendre, West Lewis, Barrow, Airlie and Bessieres Is.

Status etc. Moderately common; usually single. Sparsely wooded country. Breeding April-September; C/1-4 (mostly 3).

*Circus aeruginosus approximans* Peale

Marsh Harrier

Status etc. Rare non-breeding visitor (February-September), mainly to coastal plains; usually single. Flooded grasslands and samphire, *Typha*-fringed river pools, and sewage ponds.

*Pandion haliaetus cristatus* (Vieillot)

Osprey

Range. Most coasts north to Cape Keraudren, including Depuch I., \*Jarman I., \*Bezout I., \*Delambre I., Dampier Archipelago (\*Legendre, Dolphin; Angel, \*Rosemary, Goodwyn, \*Enderby, \*West Lewis), Passage Is (\*Fortescue, \*Sholl, Long, \*Passage, Great Sandy), Montebello Is (\*North West, Trimouille, \*Hermite), Lowendal Is, \*Barrow I. (including Mushroom, \*Double, \*Boodie), \*North Sandy I., \*Direction I., \*Thevenard I., \*Bessieres I. and \*Frazer I.; also lower courses of larger rivers (DeGrey, Maitland, Ashburton); casual further inland (Wittenoom Gorge).

Status etc. Common, usually in ones or twos. Sheltered seas around islands, tidal creeks and estuaries; occasionally visiting river pools and saltwork ponds. Breeding mainly on islands (reports from those asterisked above); also commonly on mainland, usually in mangroves, occasionally on man-made structures, e.g. buoy in Port Hedland harbour, telephone pole at Cape Lambert, wreck off North West Cape and jetty at Maud Landing: early June-early September; C/2-4 (mostly 2 or 3), one egg often infertile.

## FALCONIDAE

*Falco subniger* Gray Black Falcon  
Status etc. Rare visitor, usually single. One breeding report from far south-east (Ethel Creek): August; C/3.

*Falco peregrinus macropus* Swainson Peregrine Falcon  
Range. Southern and western, north to Depuch I., Woodstock and Ethel Creek.  
Status etc. Rare visitor (mostly March-August), occasionally breeding; usually single. Most records from hilly country, especially the Hamersley Range. One breeding report from far south-east (5 km E of Ethel Creek): September; C/3.

*Falco longipennis longipennis* Swainson Australian Hobby  
Range. Throughout the mainland.  
Status etc. Uncommon to moderately common, usually single; numbers apparently augmented by passage migrants and winter visitors. Lightly wooded country, especially about soaks and waterholes. Breeding August-September; C/3(3).

*Falco hypoleucos* Gould Grey Falcon  
Status etc. Scarce visitor; usually single, occasionally in small parties (up to 5). Mostly recorded from coastal plains between the DeGrey and the Ashburton.

*Falco berigora berigora* Vigors & Horsfield Brown Falcon  
Range. Throughout the region, including (in winter) Jarman, Dolphin, West Lewis, Rosemary, Enderby and Barrow Is.  
Status etc. Common; usually single. Lightly wooded country; attracted to road-kills and grass fires. Breeding June-September; C/2-5 (mostly 3, rarely 5).

*Falco cenchroides cenchroides* Vigors & Horsfield Australian Kestrel  
Range. Throughout the region, including Bedout I. (in autumn passage), Depuch I., Jarman I., Dampier Archipelago (Legendre, Dolphin, Rosemary, Elphick Nob, off Malus, Goodwyn, Enderby, West Lewis), Trimouille I., Hermite I., Barrow I. (resident), North Sandy I., Great Sandy I., Airlie I. and Bessieres I.  
Status etc. Common resident and very common autumn-winter visitor; usually single, occasionally in twos or small parties (up to 8). Treeless or lightly wooded country. Breeding on mainland and Barrow I.: July-October; C/3(4), 4(8), 5(4); commonly nesting in hollow eucalypts.

## PHASIANIDAE

*Coturnix novaezelandiae pectoralis* Gould Stubble Quail  
Range. Greater part of region, inland to the upper DeGrey (Coppins) and Newman.  
Status etc. Uncommon to moderately common visitor to coastal and riverine plains, in

ones, twos or small parties (up to 6); rare or absent in hilly interior. Open or lightly wooded grasslands, and samphire flats. Breeding reported in the far south-west (Point Cloates): August and September; C/11(1).

*Coturnix ypsilophora australis* (Latham) Brown Quail

Range. Far north-eastern coastal plains, west to the DeGrey delta; also the Dampier Archipelago (Legendre, Rosemary, Angel and one of the Lewis Is), Montebello Is (Hermite), Barrow I. and islands off Onslow (Airlie, Thevenard, Bessieres, Serrurier).

Status etc. Uncommon. Open or lightly wooded grasslands (including *Spinifex longifolius* and *Triodia*). One breeding report (Hermite I.): ? April; C/7.

## TURNICIDAE

*Turnix velox* (Gould) Little Button-quail

Range. Throughout the mainland.

Status etc. Common in good seasons; in ones, twos or small parties (up to 5). *Spinifex* (*Triodia* and *Plectrachne*) and other grasses and herbage, usually on flats near coast and along watercourses in interior. Breeding March-September; C/4(6).

## GRUIDAE

*Grus rubicundus* (Perry) Brolga

Range. Northern coastal plains south-west to the vicinity of Onslow.

Status etc. Non-breeding dry-season visitor (late July-early November), presumably from the Kimberley. Uncommon; usually in small parties (up to 15), rarely flocks (35-96). Grass and samphire flats, river pools, waterholes and ephemeral waters.

## RALLIDAE

*Gallirallus philippensis mellori* (Mathews) Banded Land Rail

Range. Coastal areas from Pardoo (Banningarra Spring) south-west to Point Cloates; casual inland (Tom Price).

Status etc. Nomadic. Moderately common; in ones or twos. Mangroves and adjacent flats, *Typha*-fringed soaks and swamps, and long grass. One breeding report (Mangrove Bay): July; C/8.

*Porzana fluminea* Gould Spotted Crake

Range. Greater part of region: specimens from Onslow and Tom Price and observations at Pardoo, Goldsworthy and Millstream.

Status etc. Uncommon; usually in pairs. Freshwater swamps and soaks fringed with *Typha* and sedges. One breeding report (Tom Price): late July or early August.

*Porzana tabuensis* (Gmelin)

Spotless Crake

Range etc. Collected and observed at Millstream and Tom Price at *Typha*-fringed swamps and springs.

*Porphyrio porphyrio melanotus* Temminck

Swamphen

Range etc. Only certainly known from the permanent and fairly numerous population inhabiting the extensive beds of *Typha* about the Fortescue River immediately below Millstream HS.

*Gallinula ventralis* Gould

Black-tailed Native Hen

Range. Greater part of region, north to Sandfire and east to Balfour Downs and Jiggalong.

Status etc. Nomadic. Locally common in good years but generally scarce; in ones, twos or small parties (up to 14). Mainly inundated flats and other ephemeral waters (following winter as well as summer rains); also sewage ponds and river pools. A few breeding reports from south-west (only one dated): July; C/4-7.

*Gallinula tenebrosa tenebrosa* Gould

Dusky Moorhen

Range etc. Rare visitor to far south of region: one observed by J. A. Smith at Tom Price sewage ponds on several occasions between 6 June and 13 November 1977; and three observed by R. E. Johnstone and L. A. Smith at Newman sewage ponds on 5 November 1981.

*Fulica atra australis* Gould

Coot

Range. Greater part of region, north to Sandfire and east to Shay Gap, Woodie Woodie and Newman.

Status etc. Formerly an infrequent, now a moderately frequent visitor; seldom breeding. Rare to moderately common (more plentiful on coastal plains than in interior); usually in small parties, occasionally flocks (up to 120). Sewage ponds, river pools and flooded claypans and samphire flats. One breeding report (east of Sandfire): February or March.

## OTIDIDAE

*Otis australis* Gray

Australian Bustard

Range. Throughout the mainland; casual on Barrow I.

Status etc. Nomadic. Locally and seasonally varying from scarce to common; usually in ones or twos, commonly small flocks (up to 35). Mainly treeless or lightly wooded plains, including spinifex sandplains of Great Sandy Desert. Breeding March-September; C/1(4), 2(11).

## JACANIDAE

- Hydrophasianus chirurgus* (Scopoli) Pheasant-tailed Jacana  
Status. Vagrant from south-east Asia. One record: one observed by J. A. Smith at Paraburdoo sewage pond on 22 December 1974 (*West. Aust. Nat.* 13: 60).

## ROSTRATULIDAE

- Rostratula benghalensis australis* (Gould) Painted Snipe  
One record: a male seen by J. A. Smith at Paraburdoo sewage pond on 14 December 1974 (not recorded on ten other visits to pond that month).

## HAEMATOPODIDAE

- Haematopus longirostris longirostris* Vieillot Pied Oystercatcher  
Range. All coasts, including most islands east to Depuch and as far offshore as Legendre and North West.

Status etc. Common; usually in pairs; flocks (up to 35) observed in June and September. Tidal mud and reef flats and sandy beaches. Breeding early July-early September; C/1 (occasionally, but ? complete), 2 (usually), 3 (very rarely).

- Haematopus fuliginosus ophthalmicus* Castelnau and Ramsay Sooty Oystercatcher  
Range. Coasts north to Cape Keraudren, including many islands from Depuch south-west to Thevenard and as far offshore as North West.

Status etc. Moderately common; usually in pairs or small parties (up to 10). Tidal reef and mud flats and sandy beaches. Breeding August-September; C/2 (invariably).

## CHARADRIIDAE

- Vanellus miles miles* (Boddaert) Masked Plover  
Status. Vagrant (presumably from Kimberley). One record from north-east coast: a specimen collected by F. T. Gregory at the DeGrey estuary on 28 September 1861 and sent to John Gould.

- Vanellus tricolor* (Vieillot) Banded Plover  
Range. Western and southern, north to Roebourne, Coolawanyah, Roy Hill [and Old Talawana].

Status etc. Visitor (mostly May-July), occasionally breeding in extreme south. Uncommon; usually in pairs or small parties (up to 8). Sparsely vegetated plains. One breeding report (Ullawarra): February; C/4.

This species was not recorded by early workers, notably T. Carter and F. L. Whitlock. Its appearance in the Pilbara in the late 1920s, at the same time as its occupation of coastal areas in the south-west of the State, was probably connected with the great expansion of the Wheat Belt early this century.

*Pluvialis squatarola* (Linnaeus)

Grey Plover

Range. All coasts, including Barrow I.

Status etc. Visitor (all months). Ordinarily uncommon, in ones, twos or small parties; two September reports of flocks of some hundreds at Mandora Creek, presumably of birds on southward passage. Tidal mudflats, beaches and saltwork ponds.

*Pluvialis dominica fulva* (Gmelin)

Eastern Golden Plover

Range. All coasts, including Barrow I.; casual on coastal plains.

Status etc. Scarce visitor (most months); usually single, occasionally in small parties (up to 7). Tidal mudflats, wet grassy flats, and sewage and saltwork ponds.

*Charadrius dubius curonicus* Gmelin

Little Ringed Plover

One record from far north-east: two observed by J. C. Darnell at Mt Goldsworthy sewage ponds for several days in October 1972.

*Charadrius ruficapillus* Temminck

Red-capped Plover

Range. Most coasts, including larger islands (Rosemary, West Lewis, Trimouille, Hermite, Barrow, Thevenard); casual inland.

Status etc. Common; usually in ones, twos or small parties; aggregations of 80-500 at Mandora Creek, Leslie Salt, Dampier Salt and Mangrove Bay. Mudflats, beaches, near-coastal saltmarshes, and saltwork and sewage ponds. Recorded on inland fresh waters (pools on the lower Harding, lower Maitland and lower Ashburton, and Paraburdoo sewage pond) only in summer. Breeding reported on mainland coasts and West Lewis and Barrow Is: late May-September and ? February; C/2(9), 3(1).

*Charadrius mongolus mongolus* Pallas

Mongolian Sand Plover

Range. Mainland coasts from the Eighty Mile Beach south-west to Yardie Creek; also Bedout I. (on northward passage) and Hermite I.

Status etc. Uncommon visitor (early August-late May); usually single, larger aggregations at Leslie Salt in autumn. Tidal mudflats, saltwork ponds and beaches.

*Charadrius leschenaultii* Lesson

Large Sand Plover

Range. All coasts, including the Montebello, Barrow and Great Sandy Is.

Status etc. Common visitor (all months); usually in ones, twos or small parties, occasionally flocks (up to 50). Tidal mudflats, beaches, reef flats and saltwork ponds.



*Charadrius melanops* Vieillot

Black-fronted Plover

Range. Throughout the mainland.

Status etc. Moderately common; usually in ones or twos, occasionally small flocks (up to 15). Bare margins of fresh waters (river pools, lagoons, swamps and sewage ponds). Breeding January-June (? July); C/2(1), 3(1), 4(1).

*Charadrius veredus* Gould

Oriental Plover

Range. Coastal plains south to Cardabia; also Barrow I. (on southward passage); casual in interior.

Status etc. Common visitor (late August-early April), usually in small flocks; occasional reports of many thousands (usually soon after arrival or just before departure, but on one occasion in late December). Mainly near-coastal samphire and grass flats; also beaches, tidal creeks, saltwork ponds, and sewage ponds (as far inland as Newman).

*Charadrius cinctus* (Gould)

Red-kneed Plover

Range. Greater part of region, north to Sandfire and inland to Newman.

Status etc. Nomadic. Uncommon; in ones, twos or small flocks (up to 20). Flooded samphire, river pools and sewage ponds. Breeding late February-early April: C/3(4), 4(11), 5(1).

*Peltohyas australis* (Gould)

Australian Dotterel

Range. Far southern interior, north to the middle Ashburton (10 km SE of Kooline).

Status etc. Moderately common visitor (April-early September); usually in small parties (up to 8). Sparsely vegetated stony plains; also dry claypans. Breeding April-July: C/3(4).

## SCOLOPACIDAE

*Numenius minutus* Gould

Little Whimbrel

Range. Coasts and coastal plains south to Point Cloates.

Status etc. Visitor (late September-early April). Uncommon to moderately common in north-east, scarce south-west of Port Hedland; usually in ones, twos or small parties, occasionally flocks (up to 150). Mainly near-coastal samphire and grass flats; also tidal mudflats.

*Numenius phaeopus variegatus* (Scopoli)

Whimbrel

Range. All coasts, including the larger islands (Legendre, West Lewis, Enderby, Barrow).

Status etc. Common visitor (all months); usually in ones or twos, occasionally small flocks (up to 25). Mainly tidal mudflats; occasionally saltwork ponds and beaches.

- Numenius madagascariensis* (Linnaeus) Eastern Curlew  
 Range. All coasts, including Barrow I.  
 Status etc. Moderately common visitor (all months); usually in ones or twos, occasionally small parties (up to 6). Mainly tidal mudflats; also saltwork ponds.
- Limosa limosa melanuroides* Gould Black-tailed Godwit  
 Range. Coasts from Port Hedland (Leslie Salt) south-west to Mangrove Bay; also Barrow I.  
 Status etc. Scarce visitor (June-January); in ones, twos or small flocks (up to 15). Mainly saltwork ponds; also rocky and muddy coasts.
- Limosa lapponica baueri* Naumann Bar-tailed Godwit  
 Range. All coasts, including the Montebello and Barrow Is.  
 Status etc. Common visitor (all months); usually in ones, twos or small parties, occasionally flocks (up to 500). Tidal mudflats, beaches and saltwork ponds.
- Tringa totanus* (Linnaeus) Common Redshank  
 Status. Rare visitor to coastal areas. Four records, all observations of single birds: by J. C. Darnell and R. E. Johnstone at Leslie Salt (40 km ENE of Port Hedland) on two occasions in September and October 1975; by T. Carter (1902, *Emu* 2: 83) at Mangrove Bay on 22 June 1902; and by L. E. Sedgwick (1976, *West. Aust. Nat.* 13: 123) at muddy edge of salt lake 1 km E of Coral Bay on 2 September 1974.
- Tringa stagnatilis* (Bechstein) Marsh Sandpiper  
 Range. Northern coasts and coastal plains from Pardoo (Banningarra Spring) south-west to Dampier and inland to Shay Gap.  
 Status etc. Uncommon visitor (late August-early June); usually in ones, twos or small parties, occasionally flocks (up to 100). Near-coastal brackish lagoons and freshwater soaks, and saltwork and sewage ponds.
- Tringa nebularia* (Gunnerus) Greenshank  
 Range. Greater part of region, south to Yardie Creek and east to Sandfire, Muccan and Newman; also Rosemary and Barrow Is.  
 Status etc. Visitor (late August-early June). Moderately common on northern coasts and coastal plains, uncommon south of Dampier and in interior; usually in ones, twos or small parties, occasionally flocks (up to 150). Tidal mudflats, mangrove creeks, flooded samphire flats, beaches, river pools, and saltwork and sewage ponds.
- Tringa glareola* Linnaeus Wood Sandpiper  
 Range. Greater part of region, north to the lower DeGrey and east to Goldsworthy and Newman.  
 Status etc. Uncommon visitor (August-April); in ones, twos or small flocks (up to 30). River pools, sewage ponds, freshwater lagoons, and bore-overflows.

- Tringa terek* (Latham) Terek Sandpiper  
 Range. Northern coasts from Mandora south-west to Dampier; also Barrow I.  
 Status etc. Scarce visitor (August-May); in ones, twos or small flocks (up to 40). Tidal mudflats and saltwork ponds.
- Tringa hypoleucos* Linnaeus Common Sandpiper  
 Range. Greater part of region, inland to Shay Gap, the Oakover (Carawine Gorge) and Newman; also Barrow I.  
 Status etc. Moderately common visitor (late August-early May); usually in ones or twos, occasionally small parties. Sheltered salt waters (mangrove creeks, tidal mud and reef flats, beaches and saltwork ponds), river pools, sewage ponds and ephemeral waters (bulldozer scrapes and roadside puddles).
- Tringa brevipes* (Vieillot) Grey-tailed Tattler  
 Range. All coasts, including islands (as far offshore as Legendre and the Montebellos).  
 Status etc. Common visitor (all months); usually in ones or twos, occasionally flocks (up to 100). Tidal mud and reef flats, mangrove creeks, beaches and saltwork ponds; also near-coastal sewage ponds and brackish lagoons.
- Arenaria interpres interpres* (Linnaeus) Ruddy Turnstone  
 Range. All coasts, including the Eighty Mile Beach and Elphick Nob, West Lewis, Enderby, Passage, Trimouille, Hermite, Barrow, North Sandy, Great Sandy, Airlie and Thevenard Is.  
 Status etc. Common visitor (all months); in ones, twos or small flocks (up to 15). Tidal mud and reef flats, beaches and saltwork ponds; also near-coastal sewage ponds (Port Hedland, Wickham).
- Limnodromus semipalmatus* (Blyth) Asian Dowitcher  
 Range. North-eastern coasts from Mandora Creek west nearly to Port Hedland (Leslie Salt).  
 Status etc. Rare visitor (late August-early April); in ones, twos or small flocks (up to 35). Mudflats in tidal creeks and saltwork ponds, usually in association with Bar-tailed Godwits.
- Gallinago megala* Swinhoe Swinhoe's Snipe  
 Status uncertain; possibly a regular but rare visitor (October-March) to fresh waters in far north-east, but only certainly known from WAM A15853, collected at Mt Goldsworthy sewage ponds on 19 October 1977.
- Gallinago stenura* (Bonaparte) Pintail Snipe  
 Range. Northern coastal plains from Pardoo (Banningarra Spring) south-west to the lower Maitland (Whyjabby Pool) and inland to Shay Gap; casual further south (Newman, but ? species).

Status etc. Uncommon visitor (late September-early April); usually single, occasionally in small parties (up to 6). Freshwater soaks, river pools, sewage ponds and floodwaters.

*Calidris canutus canutus* (Linnaeus)

Red Knot

Range. Most coasts from Mandora Creek south-west to the Ashburton estuary; also Barrow I.

Status etc. Uncommon visitor (August-early April); singly or in small parties. Tidal mud and sand flats and saltwork ponds.

*Calidris tenuirostris* Horsfield

Great Knot

Range. Northern coasts from Mandora Creek west to Port Hedland; also Barrow I.

Status etc. Moderately common visitor (August-May); ordinarily in ones, twos or small flocks (up to 40), in flocks of some hundreds on northward passage (Mandora Creek, 14 April 1979). Tidal mud and sand flats and saltwork ponds.

*Calidris alba* (Pallas)

Sanderling

Range. Most coasts from Mandora south-west to Point Cloates; also Barrow I.

Status etc. Visitor (all months). Locally common (Eighty Mile Beach and Point Cloates) but generally uncommon; usually in small flocks (up to 30). Mainly open beaches; also sandy inlets and saltwork ponds.

*Calidris ruficollis* (Pallas)

Red-necked Stint

Range. All mainland coasts; also the Montebello Is, Barrow I. and the extensive sapphire flats east of Sandfire.

Status etc. Very common visitor (all months); ordinarily in small flocks, occasionally aggregations of hundreds, thousands or tens of thousands. Tidal flats, beaches and saltwork ponds; also inundated sapphire flats and near-coastal sewage ponds, brackish lagoons and freshwater soaks.

*Calidris subminuta* (Middendorff)

Long-toed Stint

Status etc. Scarce visitor (late August-late March); in ones, twos or small parties (up to 12). Recorded at freshwater pools on Petermarer Creek and the Yule and at the Karratha and Newman sewage ponds.

*Calidris melanotos* (Vieillot)

Pectoral Sandpiper

Status etc. Rare visitor to fresh waters. Two records: one observed by J. R. Ford with three Sharp-tailed Sandpipers at a small pool on the Harding River near Roebourne on 11-12 January 1959; and one collected by R. E. Johnstone and L. A. Smith from a mixed flock of *ca* 10 Pectoral and 40 Sharp-tailed Sandpipers at the Newman sewage ponds on 29 November 1981.

*Calidris acuminata* (Horsfield) Sharp-tailed Sandpiper  
Range. Greater part of region, north to Mandora Creek and inland to Sandfire, Goldsworthy and Newman; also Barrow I. (on southward passage).  
Status etc. Common visitor (August-June); usually in small parties, occasionally flocks (up to 120). Flooded samphire flats, mangrove creeks, river pools, saltwork and sewage ponds, and freshwater soaks.

*Calidris ferruginea* (Pontoppidan) Curlew Sandpiper  
Range. Northern coasts from Mandora west to Nickol Bay; also Barrow I. (on southward passage).  
Status etc. Visitor (mid-August to early June). Ordinarily moderately common, in ones, twos or small parties; on passage aggregating in hundreds or thousands, e.g. at Leslie Salt from mid-September to early October and again in late March and early April. Tidal mud and sand flats and saltwork ponds; rarely near-coastal sewage ponds.

*Limicola falcinellus sibiricus* Dresser Broad-billed Sandpiper  
Range and status uncertain, except for its being a moderately common visitor (late August-April) to Leslie Salt (30-40 km ENE of Port Hedland) in flocks (up to 150).

#### RECURVIROSTRIDAE

*Himantopus himantopus leucocephalus* Gould Black-winged Stilt  
Range. Greater part of region, north to Sandfire and east to Marble Bar, Roy Hill and Newman.  
Status etc. Nomadic. Scarce to moderately common; usually in ones, twos or small parties, occasionally flocks (up to 100). Inundated samphire flats, grass flats and claypans, river pools, and saltwork, sewage and mining ponds. Breeding January-September; C/3(5), 4(22).

*Cladorhynchus leucocephala* (Vieillot) Banded Stilt  
Range. Northern coastal plains from Pardoo west to Mundabullangana; accidental on Barrow I.  
Status etc. Rare visitor (September-May); small flocks (3-25). Saltwork ponds and floodwaters.

*Recurvirostra novaehollandiae* Vieillot Red-necked Avocet  
Range. Greater part of region, north to the marshes east of Sandfire and east to Newman.  
Status etc. Nomadic. Rare to common; usually in ones, twos or small parties, occasionally in aggregations of many hundreds. Flooded saltmarshes and claypans, brackish near-coastal lagoons, saltwork and sewage ponds and roadside puddles. Breeding March-April; C/4(2).

## PHALAROPODIDAE

### *Phalaropus lobatus* (Linnaeus)

Red-necked Phalarope

Status. Rare visitor. Only recorded on Leslie Saltwork ponds (34 km ENE of Port Hedland), e.g. two parties of four birds observed and four specimens collected by R. E. Johnstone and L. A. Smith on 16 November 1981.

## BURHINIDAE

### *Burhinus grallarius* (Latham)

Bush Stone-curlew

Range. Greater part of region, north to Port Hedland and east to Shay Gap, the Oakover (Braeside) and Jiggalong; also the Dampier Archipelago (Legendre, Rosemary, West Lewis, Enderby).

Status etc. Uncommon; in ones or twos. One breeding report (near Kooline): September; C/2.

### *Esacus magnirostris* (Vieillot)

Beach Stone-curlew

Range. Coasts from Leslie Salt (40 km ENE of Port Hedland) south-west nearly to Point Cloates (Sandy Point); also Rosemary, \*West Lewis, \*Enderby, \*Great Sandy, \*Trimouille, Barrow, \*Weld and Thevenard Is.

Status etc. Moderately common on islands, rare on mainland (perhaps more plentiful in past); in ones, twos, or threes. Mainly sandy or shingly beaches; also tidal reef flats. Breeding mainly on islands (reports from those asterisked above), also on mainland near Low Point: August-October; C/1(6).

## GLAREOLIDAE

### *Stiltia isabella* (Vieillot)

Australian Pratincole

Range. Greater part of region, north to Mandora and east to Sandfire, Shay Gap, Warrawagine and Newman.

Status etc. Moderately common on far north-eastern coastal plains; in ones, twos or flocks (up to 60). Scarce on coastal plains between the DeGrey and the Yanyare; rare elsewhere. Samphire and grass flats, especially in vicinity of water. Breeding south to Yanrey: March and August; C/1(1), 2(3).

### *Glareola maldivarum* (Forster)

Oriental Pratincole

Range. Mainly coastal plains, but extending south-east (via the DeGrey and the Talga) to Coppins and Mt Edgar.

Status etc. Common visitor (December-May, mostly January-March); ordinarily in small parties, but loose flocks of hundreds or thousands during thunderstorms or ahead of tropical cyclones. Sparsely wooded plains, feeding entirely in air (on emerging locusts etc.) and roosting at night on bare ground beside floodwaters.

## LARIDAE

*Stercorarius skua lonnbergi* (Mathews) Great Skua

Status. Rare winter visitor. Two records: one seen by R. E. and C. Johnstone at Cape Keraudren on 24 June 1974, and one seen by I. Abbott (1979, *Corella* 3: 96) at Bedout I. on 28 May 1978.

*Larus novaehollandiae novaehollandiae* Stephens Silver Gull

Range. All coasts, including many islands (as far offshore as Bedout, Legendre and Trimouille).

Status etc. Uncommon to moderately common about islands and on mainland at towns, saltworks and sewage ponds; elsewhere scarce or uncommon. Mainly coasts and sheltered seas, occasionally extending inland to freshwater pools on lower courses of rivers and to flooded near-coastal samphire flats (as far inland as 11 km ENE of Sandfire). Breeding on Elphick Nob: January; C/1(3); also undated reports from the Montebellos (Long I. and offshore rocks) and from islands off Barrow I. (Mushroom, Middle, Boodie) and presumed autumn breeding on Jarman and North Sandy Is.

Also a rare visitor (from south-eastern Australia) to fresh waters of interior. One record from far south-east: R. E. Johnstone and L. A. Smith observed four and collected one at the Newman sewage ponds on 5-6 November 1981.

Taxonomy. See Johnstone (1982, *Rec. West. Aust. Mus.* 10: 133).

*Larus pacificus georgii* Vigors Pacific Gull

Status. Former visitor (presumably from Shark Bay) to far south-west coast. One record: T. Carter (1920, *Ibis* (11) 2: 694) saw some at the former whaling station near Point Cloates on 6 September 1913; he believed that they had been attracted to the hundreds of dead whales that lay along the beach from Point Maud to North West Cape in 1913.

*Anous stolidus pileatus* Scopoli Common Noddy

Range. Only recorded at Bedout I. (well offshore in northern seas) and Frazer I. (close to south-west coast).

Status etc. Several thousands breeding on Bedout I., the birds returning in May and laying towards end of month (at least in 1901, 1968 and 1972, but evidently not in 1975 or 1979); birds still incubating on 21 October 1841, but only 12 birds and no nests seen on 19 October 1949; C/1(invariably). On 3 April 1902 T. Carter (1902, *Emu* 2: 105) saw great numbers about Frazer I. (10 km NNW of Point Cloates).

*Sterna nilotica macrotarsa* Gould Gull-billed Tern

Range. Coasts and coastal plains from the Eighty Mile Beach (Mandora) south-west to Cardabia; casual on Barrow I.

Status etc. Visitor (mostly May-November), rarely breeding. Moderately common in far north, uncommon to moderately common between the DeGrey and the Maitland, seldom recorded further south; usually in small parties, occasionally

hundreds. Inundated samphire, tidal creeks, saltwork ponds, river pools, sewage ponds and sheltered seas; also taking grasshoppers and small lizards from ground and cicadas from tops of low shrubs. One breeding report (*Cardabia*): late April; C/1(2) [probably incomplete].

*Sterna caspia* Pallas

Caspian Tern

Range. All coasts, including many islands (as far offshore as Bedout, Legendre and Trimouille); accidental in interior.

Status etc. Moderately common; usually in ones, twos or small parties, occasionally flocks (up to 250). Sheltered seas (including estuaries and tidal creeks), brackish pools on lower courses of rivers, and saltwork ponds. Breeding (nests solitary or in colonies of up to 52) mainly on islands (North Turtle, Jarman, Enderby, Cormorant, Great Sandy, Trimouille, Weld, Mushroom, Thevenard, Frazer), occasionally on mainland coasts (Cape Preston, Yardie Creek, Point Cloates): late March to early November; C/1(16), 2 (*ca* 100). One observed by J. A. Smith at the Paraburdoo sewage pond on 20 February 1975, immediately after passing of tropical cyclone 'Trixie' down north-west coast.

*Sterna bergii* Lichtenstein

Crested Tern

Range. All coasts, including many islands (as far offshore as Bedout, Legendre and Trimouille).

Status etc. Moderately common to common; resting in flocks (up to 180) but usually fishing singly. Sheltered seas; also estuaries and saltwork ponds. Breeding on Bedout I. (2-300 pairs), small island north-west of Bluebell I. (*ca* 30 pairs) and Frazer I. (14-60 pairs): late March to May; C/1(invariably).

*Sterna bengalensis* Lesson

Lesser Crested Tern

Range. Most coasts, including islands (as far offshore as Bedout, Rosemary and Barrow).

Status etc. Moderately common; usually resting in small flocks (up to 60) or mixed with Crested or Roseate Terns, fishing singly or (at schools of fish harassed by tuna etc.) in small flocks. Sheltered seas. Breeding in small numbers on Bedout I.: April-May; C/1(4).

*Sterna dougallii* Montagu

Roseate Tern

Range. Most seas, as far offshore as Bedout, Rosemary and Barrow Is.

Status etc. Common in far northern blue-water seas (off the Eighty Mile Beach and around Bedout I.), usually in flocks (up to 100); scarce further south. Breeding in small numbers on Frazer I. in October, and (but ? species) on Bedout I. in May.

*Sterna hirundo longipennis* Nordmann

Common Tern

Range. Most coasts, as far offshore as Barrow I.

Status etc. Regular visitor (late August-late April) from north-east Asia. Common at Leslie Salt (40 km ENE of Port Hedland) in ones, twos, small parties or flocks (up to 300); seldom reported elsewhere.



- Sterna anaethetus anaethetus* Scopoli Bridled Tern  
 Range. Dampier Archipelago and Montebello Is.  
 Status etc. Summer visitor (late October-April). Blue-water seas in vicinity of nesting islands. Breeding on Elphick Nob, Kendrew I. and rocky islets south of Hermite I.: December-February; C/1(3).
- Sterna fuscata* Linnaeus Sooty Tern  
 Range. Northern seas, west to 117°E; accidental in interior.  
 Status etc. Scarce. Breeding in very small numbers on Bedout I.: May; C/1(8). An exhausted bird found at Paraburdoo by J. A. Smith on 25 February 1975, a few days after tropical cyclone 'Trixie' passed down north-west coast.
- Sterna hybrida javanica* Horsfield Whiskered Tern  
 Range. Greater part of region, inland to Sandfire and Newman.  
 Status etc. Uncommon to common visitor, numbers varying with extent of floodwaters on coastal plains; usually in ones, twos or small parties, occasionally hundreds. Inundated near-coastal samphire flats and claypans, mangrove creeks and other sheltered inlets, river pools, and saltwork and sewage ponds. Breeding on marshes east of Sandfire: February-March.
- Sterna leucoptera* Temminck White-winged Black Tern  
 Range. Coasts and near-coastal waters and flats south to the Ashburton.  
 Status etc. Uncommon to very common visitor (late September to mid-April) from north-east Asia; usually in ones, twos or small flocks, occasionally in thousands before departure. Estuaries and other sheltered seas and saltwork ponds; also feeding on locusts over samphire flats.
- Sterna sinensis* Gmelin Little Tern  
 Range. Northern coasts south to Onslow; accidental in interior.  
 Status etc. Uncommon visitor (September-April) from north-east Asia; in ones, twos or small flocks (up to 19). Mangrove creeks, sheltered seas and saltwork ponds. One found dead (WAM A15819) at Wittenoom in early October 1978.
- Sterna nereis nereis* (Gould) Fairy Tern  
 Range. Southern seas, east to the Dampier Archipelago and as far offshore as Rosemary and Trimouille Is.  
 Status etc. Common around islands, usually in flocks; scarce or uncommon close to mainland. Blue-water seas. Breeding on Mushroom I. (off Barrow I.) and on mainland at Cape Preston and Low Point: late July-September; C/1-3 (usually 1 or 2).

## COLUMBIDAE

*Geopelia humeralis* (Temminck) Bar-shouldered Dove

Range. Most coasts from Cape Keraudren south-west to Mangrove Bay, including the Dampier Archipelago (Legendre, Dolphin, Angel, Enderby, West Lewis), Montebello Is (Trimouille, Hermite) and Barrow (including Mushroom, Double and Boodie), North Sandy, Great Sandy and Bessieres Is.

Status etc. Common; usually in ones, twos or small parties (up to 8). Mangroves and their vicinity, especially dune scrub (*A. coriacea* and other acacias), *Melaleuca acacioides* thicket, and tussock grassland (*Spinifex longifolius* and *Triodia* spp.). Breeding July-October; C/2(16).

*Geopelia striata placida* Gould Peaceful Dove

Range. Greater part of region, north to the DeGrey, south-west to the lower Ashburton and the Barlee Range, and east to the lower Oakover (Braeside and Carawine Gorge), the lower Davis (Ballin Billin Creek and Tooncoonaragee Pool), and the upper Fortescue (near Roy Hill and Newman).

Status etc. Locally common, but generally uncommon and patchily distributed; usually in pairs or small parties (up to 8). In and near riverine forests (*Melaleuca leucadendron*, *Eucalyptus camaldulensis*), especially around permanent pools on major watercourses. Breeding reported in February, April and September; C/2(1).

*Geopelia cuneata* (Latham) Diamond Dove

Range. Throughout the region, including sandy deserts and Enderby and West Lewis Is.

Status etc. Partly nomadic. Common; usually in pairs or small parties (up to 12), aggregating at height of dry season or during droughts in much larger numbers at permanent water. Lightly wooded grasslands (including *Triodia*) in vicinity of water. Breeding February-April and July-December; C/2(10).

*Phaps chalcoptera* (Latham) Common Bronzewing

Range. Hilly southern interior, north to Pannawonica, Millstream, Woodstock, Nullagine and the lower Davis (Tooncoonaragee Pool), east to the upper Oakover (Junction Well) and Jiggalong, and west to the middle Cane (Cattle Pool) and Barlee Range (upper Kookhabinna Creek); casual in coastal lowlands.

Status etc. Locally moderately common, but generally uncommon; usually in ones or twos, with aggregations (up to 20) at water. Mainly wattle thickets (*A. citrinoviridis* and other acacias) along minor watercourses; also *Melaleuca*, *Santalum*, *Cassia*, *Cleome* and other shrubbery near water. Breeding February-September; C/1(1), 2(6).

*Phaps histrionica* (Gould) Flock Pigeon

Range. Coastal plains north to the DeGrey; casual in hilly interior.

Status etc. Very irregular visitor, appearing (if at all) usually in ones, twos or small

flocks (up to 120), but in some years (1901, 1958, 1966) much larger flocks (400-2000) about the lower Maitland, lower Fortescue, lower Ashburton and lower Lyndon.

*Geophaps plumifera* Gould

Spinifex Pigeon

Range. Greater part of region, north to Pardoo Creek (at Great Northern Highway), Shay Gap and Warrawagine, and west to the Burrup Peninsula, lower Fortescue (Balmoral), Peedamulla and Barradale; with an isolated population further west in the Cape Range, south to Yardie Creek.

Status etc. Moderately common to very common (much the commonest columbid in hilly country but outnumbered by Crested Pigeon and Diamond Dove in most flatlands); usually in ones, twos or small parties, but up to 40 birds at water. Lightly wooded grasslands (especially *Triodia* in stony or rocky country) in vicinity of water. Breeding May-January (? February); C/2(46). For diet at Cockeraga River see Frith and Barker (1975, *Aust. Wildl. Res.* 2: 63).

*Ocyphaps lophotes* (Temminck)

Crested Pigeon

Range. Throughout the mainland.

Status etc. Originally local and uncommon. Now common everywhere, except in mountainous country and sandy deserts; usually in ones, twos or small parties, but up to 80 birds at water. Lightly wooded grasslands in vicinity of water. Breeding 'all year round'; but the only egg months cited are February, March, July and August; C/2(7).

In 1904 T. Carter described this pigeon as 'not common, and apparently decreasing' in the Point Cloates district. During a visit to the Marble Bar district and lower DeGrey in August-October 1908, F. L. Whitlock only met with it on the lower Coongan, where it was 'far from common', and he did not record it at all during his visit to the Millstream district in July-November 1922. Soon after this, however, A. Robinson found it very common in the Ullawarra district.

## PSITTACIDAE

*Aprosmictus erythropterus* (Gmelin)

Red-winged Parrot

Range. Extreme north-eastern coastal plains, west nearly to Wallal.

Status etc. Uncommon; single or in small flocks (up to 17). Habitat not stated by observers, but presumably pindan at its impoverished south-western limit.

*Platycercus zonarius zonarius* (Shaw)

Ring-necked Parrot

Range. Greater part of region, north to the lower DeGrey, Shay Gap and Warrawagine, and east to the upper Oakover and Jiggalong.

Status etc. Common in the Chichester, Hamersley and Barlee Ranges, but generally uncommon to moderately common; usually in pairs or family parties. Mainly riverine forests (*Eucalyptus camaldulensis*, *Melaleuca leucadendron*); also mulga and eucalypt woodlands (*E. microtheca*, *E. leucophloia* etc.). Breeding July-August; C/4(1), 5(1).

*Platycercus varius* (Clark) Mulga Parrot

Range. Far south-east, north to Roy Hill (15 km N of homestead) and the upper Oakover (Junction Well), and west to Coondiner Pool and Newman.

Status etc. Scarce; in pairs or family parties. Mulga.

*Neophema elegans* (Gould) Elegant Parrot

Status. Rare autumn visitor, presumably from south-western Australia. Two records: a solitary bird seen and collected by E. W. Parsons at Hooley on 28 April 1959 (WAM A8365); and a dead bird found near Point Cloates on 31 March 1900 (T. Carter 1904, *Emu* 3: 172).

*Neophema bourkii* (Gould) Bourke's Parrot

Range. Southern interior, west to the Minilya-Exmouth road (20 km N of Warroora) and north to the middle Cane (Cattle Pool), Wyloo, Mt Bruce and Ethel Creek.

Status etc. Moderately common in south-eastern sector of Hamersley Range (around Juna Downs), uncommon elsewhere; in ones, twos or small flocks (up to 20). Mulga and other acacia scrubs.

This parrot has only recently colonized the region. Neither T. Carter nor A. Robinson saw it during their long residence in the south of the region. It was first recorded in 1959, by E. Lindgren at Jiggalong.

*Pezoporus occidentalis* (Gould) Night Parrot

Status. One record from far south-east: a freshly built nest found by N. L. Ives (1971, *West. Aust. Nat.* 12: 11) in a tussock of *Triodia* 16 km NE of Balfour Downs on 14 July 1970.

*Melopsittacus undulatus* (Shaw) Budgerigar

Range. Throughout the mainland; casual on islands (Jarman, Legendre, Rosemary).

Status etc. Abundance extremely variable, ranging locally from scarce or absent after long dry periods to very common in good seasons; usually in small flocks, occasionally flocks of several hundreds. Lightly wooded grasslands (including *Triodia*), especially on riverine plains. Breeding March-September, i.e. after winter as well as summer rains; C/3(2), 5(1).

*Nymphicus hollandicus* (Kerr) Cockatiel

Range. Throughout the mainland.

Status etc. Uncommon to common (depending on rainfall); usually in pairs or small flocks (up to 30), occasionally larger flocks (up to 200). Sparsely wooded grasslands (including *Triodia*), especially on riverine plains. Breeding January-April and July-September, i.e. after winter as well as summer rains; C/3(1).

*Calyptorhynchus magnificus* (Shaw) Red-tailed Black Cockatoo

Range. Greater part of region, north to Sandfire and east to the Oakover.

Status uncertain. Most of the few sightings were of pairs or small flocks near river

pools, but two autumn observations were of birds possibly moving between the Pilbara and Kimberley, viz. a flock of 30 seen by J. A. Smith flying north-east above the Eighty Mile Beach at Mandora on 19 May 1975; and two seen by R. P. Jaensch as they flew over Sandfire on 26 March 1982.

*Cacatua roseicapilla* Vieillot

Galah

Range. Greater part of region north-east generally to Pardoo Creek and the DeGrey, but following station water-troughs along the coastal plain behind the Eighty Mile Beach regularly to the westernmost part of Wallal Downs Station and occasionally to Mandora, and into the fringes of the Great Sandy Desert to 30 km NE of Callawa; casual on Barrow I.

Status etc. Locally uncommon, e.g. fringes of Great Sandy Desert and pastorally unoccupied sections of the Hamersley Range, but generally common; mostly in pairs or small parties, commonly flocks (20-500). Mainly lightly wooded grasslands in vicinity of water and belts of trees suitable for nesting and shelter. Breeding July-September; C/2(1), 3(5), 4(7), 5(2). Now much more plentiful and widespread than around the turn of the century, judging from remarks of T. Carter and F. L. Whitlock.

*Cacatua pastinator westralensis* (Mathews)

Little Corella

Range. Greater part of region, north to the DeGrey and east to the Oakover and Jiggalong; commonly visiting inshore islands, viz. Picard I. and the Dampier Archipelago (Legendre, Dolphin, Angel, Rosemary, Goodwyn, East Lewis, West Lewis); casual on the Passage Is (Long, Passage, North Sandy) and Barrow I.

Status etc. Common; usually in pairs or small flocks, occasionally large flocks (up to a thousand). Mostly along watercourses or coasts; also in towns and at homesteads. Breeding July-September; C/2-4 (mostly 2 or 3, rarely 4); nesting in holes in river gums, large mangroves, cliffs (including those on islands) and occasionally termitaria.

Taxonomy. This subspecies combines the bill of *C. p. sanguinea* Gould with the coloration of *C. p. pastinator* (Gould).

## CUCULIDAE

*Cuculus saturatus* Blyth

Oriental Cuckoo

Status. Rare summer visitor (November-March) from northern Asia. Reports of single birds from Goldsworthy, Roebourne, Karratha and Dampier.

*Cuculus pallidus* (Latham)

Pallid Cuckoo

Range. Throughout the mainland, including sandy deserts; also in passage on West Lewis and Barrow Is.

Status etc. Visitor and passage migrant (mostly May-September, occasionally till February). Moderately common; usually single, occasionally in twos. Most kinds of wooded country. One breeding report (upper Coongan): ca August; parasitizing *Artamus cinereus* (1 record), and fed by *Meliphaga* spp. (2).

***Chrysococcyx osculans* (Gould)** Black-eared Cuckoo  
Range etc. Breeding visitor (April-September) to far south; recorded in passage further north. Scarce; usually single. Waterside thickets. Two breeding reports (Ullawarra and 30 km S of Tom Price): July; parasitizing *Pyrrholaemus brunneus* (2 records).

***Chrysococcyx basalis* (Horsfield)** Horsfield's Bronze Cuckoo  
Range. Throughout the region, including Hermite and Barrow Is and sandy deserts.  
Status etc. Breeding visitor and passage migrant (mostly April-November). Moderately common in south and on Barrow I., uncommon in north; usually single. Mainly thickets and scrubs of mulga, wattle and other acacias; also eucalypt woodlands, mangroves, and scattered shrubs in *Triodia* grasslands. Breeding March-May and August-September; parasitizing *Aphelocephala nigricincta* (1 record), *Calamanthus fuliginosus* (1), *Malurus lamberti assimilis* (1), *M. leucopterus leuconotus* (1) and *Epthianura tricolor* (2).

***Chrysococcyx lucidus plagosus* (Latham)** Shining Bronze Cuckoo  
Status. Rare passage migrant. One record: a specimen collected near Roebourne in July (Serventy and Whittell 1976, *Bds West. Aust.*, p. 298).

***Centropus phasianinus highami* (Mathews)** Pheasant Coucal  
Range. From Cape Keraudren south-west to the lower Ashburton, and inland to the upper DeGrey (Yarrie), upper Talga (Mt Edgar), upper Nullagine, upper Turner (Abydos), Tambourah Pool, Hooley Creek (Kyalina Pool) and the Hardey-Ashburton confluence.  
Status etc. Formerly moderately common, now uncommon; in ones or twos. Rank herbage and thickets along major watercourses; also mangroves and long grass behind coastal dunes. One undated breeding report (Millstream); C/3. Song reported in September-February.  
Taxonomy. This isolated population is tentatively recognised as a large subspecies (wing of two females 286-296, v. 247-263 in six females from Kimberley and Northern Territory).

## STRIGIDAE

***Tyto alba delicatula* (Gould)** Barn Owl  
Range. Greater part of region, including Angel, Lewis and Barrow Is.  
Status uncertain; perhaps mainly an autumn-winter visitor. Uncommon. Breeding in far south (Ullawarra and inland from Point Cloates): August-September; C/3(1), 5(1).

***Ninox connivens connivens* (Latham)** Barking Owl  
Range. Greater part of region, south to the lower Ashburton and Glen Florrie, and east to the Davis (Tooncoonaragee Pool), Weeli Wolli Spring and the middle Ashburton.  
Status etc. Uncommon; usually in pairs. Dense waterside forests (*Melaleuca*

*leucadendron*, *Eucalyptus camaldulensis*). One undated breeding report (Marble Bar): C/2.

*Ninox novaeseelandiae boobook* (Latham)

Boobook Owl

Range. Greater part of region, north to the DeGrey and east to the Oakover and Jiggalong; also Depuch, Dolphin and Barrow Is.

Status etc. Resident and winter visitor (from south-western Australia). Locally scarce, e.g. the sparsely wooded Point Cloates district, but generally common; usually in ones or twos. Mainly riverside forests and woodlands; also mulga. Breeding August-September; C/3(2).

#### PODARGIDAE

*Podargus strigoides* (Latham)

Tawny Frogmouth

Range. Greater part of region, north to Pardoo and east to the Oakover and Jiggalong.

Status etc. Moderately common. Most wooded habitats. Breeding July-October and January-February; C/2(7).

#### AEGOTHELIDAE

*Aegotheles cristatus cristatus* (White)

Australian Owlet-nightjar

Range. Greater part of region, north to Port Hedland and east to the fringe of the Great Sandy Desert (27 km NE of Callawa) and the Oakover; also Depuch I.

Status etc. Moderately common. Most wooded habitats. Breeding February-April and August-September; C/3(2), 4(1).

#### CAPRIMULGIDAE

*Eurostopodus argus* Hartert

Spotted Nightjar

Range. Throughout the mainland, including sandy deserts; also Enderby I. in winter.

Status etc. Resident and presumably autumn-winter visitor. Common in hilly interior, scarce on coastal plains. Sparsely wooded, preferably stony country. Breeding July-October; C/1(4).

#### APODIDAE

*Apus pacificus pacificus* (Latham)

Fork-tailed Swift

Status etc. Irregular visitor (November-early April) from north-east Asia. Numbers highly variable; mostly in small flocks (10-50), occasionally large flocks. Usually appearing during thunderstorms or ahead of tropical cyclones.

## ALCEDINIDAE

*Dacelo leachii leachii* Vigors and Horsfield Blue-winged Kookaburra

Range. Greater part of region, north to DeGrey HS and Shay Gap, west to the lower Ashburton, lower Yannarie and lower Lyndon, and inland to the Oakover (Carawine Gorge), the Davis (Skull Springs), the upper Nullagine (7 km N of Bonney Downs), Weeli Wolli Spring and Turee Creek (Coppin Pool and Nanjilgardy Pool).

Status etc. Moderately common; in ones, twos or family parties. Forests of *Eucalyptus camaldulensis* and *Melaleuca leucadendron* along major watercourses. Breeding September-December; C/2(1).

*Halcyon pyrrhopygia* Gould Red-backed Kingfisher

Range. Greater part of region, including Depuch I. and sandy deserts but not coastal areas south of Yardie Creek.

Status etc. Common; usually single. Lightly wooded country, especially about minor watercourses. Breeding August-October; C/2(1), 3(1), 4(1).

*Halcyon sancta sancta* Vigors and Horsfield Sacred Kingfisher

Range. Greater part of region north to Mandora Creek, including (in winter or passage) North Turtle, Legendre, Dolphin, West Lewis, Enderby, the Montebello and Barrow Is, but not sandy deserts or coastal areas south of Yardie Creek.

Status etc. Breeding visitor, winter visitor and passage migrant. Common; usually in ones or twos, occasionally small parties. Well-wooded country in vicinity of water, especially riverside forests in breeding season and mangroves in passage or winter. Breeding September-January; C/4(1).

*Halcyon chloris pilbara* Johnstone Mangrove Kingfisher

Range. Estuaries and sheltered inlets from the mouth of the Turner south-west to the Bay of Rest (Exmouth Gulf); also Montebello Is (Hermité).

Status etc. Locally common, but generally uncommon; usually in ones or twos. Mangrove forests with large trees of *Avicennia marina*. Breeding September-October; C/3(1).

Taxonomy. See R. E. Johnstone (1983, *Rec. West. Aust. Mus.* 11(1)).

## MEROPIDAE

*Merops ornatus* Latham Rainbow Bee-eater

Range. Throughout the mainland.

Status etc. Resident, winter visitor and passage migrant. Locally scarce, e.g. in sandy deserts and coastal areas south of Yardie Creek, but generally moderately common to common; usually in ones, twos or small parties; occasionally small flocks (up to 15) in passage. Lightly wooded country, especially at water. Breeding August-November; C/4(1).



## CORACIDAE

*Eurystomus orientalis pacificus* (Latham) Dollarbird

Status. Scarce visitor. Five records: J. Edwards saw two at Mt Edgar in December 1960; J. C. Darnell saw one at Shay Gap in December 1972; F. Hill saw one at Point Samson in late November and early December 1977; D. A. Fleming and R. E. S. Sokolowski saw two at Karratha in January 1979; and J. H. Calaby and K. G. Buller saw one at Winning in June 1953.

## PITTIDAE

*Pitta moluccensis* (Müller) Blue-winged Pitta

Status. Rare summer visitor from south-east Asia. One record from far north-east: a bird (WAM A2921) found dead at Mandora in January 1927.

## ALAUDIDAE

*Mirafra javanica javanica* Horsfield Horsfield's Bushlark

Range. Throughout the mainland.

Status etc. Moderately common to very common on coastal and riverine plains, uncommon and patchily distributed in hilly country; in ones, twos or small parties. Mainly treeless or sparsely wooded flats with open low grasses, especially *Cenchrus* spp.; also samphire flats and *Triodia*-dominated sandplains. Breeding August-May; C/3(4), 4(3), 5(1).

## HIRUNDINIDAE

*Cheramoeca leucosterna* (Gould) White-backed Swallow

Range. Greater part of region, but absent from much of hilly interior, e.g. the Chichester and Hamersley Ranges.

Status etc. Resident and winter visitor. Moderately common in southern coastal dunes and near-coastal sandy or loamy plains north to Onslow; uncommon, scarce or absent elsewhere; usually in ones, twos or small parties (up to 6). Breeding north to Sandfire: April and August-September; C/5(1).

*Hirundo rustica gutturalis* Scopoli Barn Swallow

Range. Coastal plains from Cape Keraudren south-west to Exmouth, and inland to Goldsworthy.

Status etc. Moderately common visitor (September-December) from north-east Asia; in ones, twos or small flocks (up to 15), sometimes attached to larger flocks of *H. n. nigricans*. Usually vicinity of water (freshwater soaks, sewage ponds; tidal creeks and saltwork ponds).

*Hirundo neoxena* Gould

Welcome Swallow

Range. Coastal areas north to Port Hedland, including Depuch I., the Dampier Archipelago (Legendre, Rosemary, Elphick Nob, Enderby, West Lewis), Montebello Is (North West, Trimouille, Hermite), Lowendal Is and Barrow I. (including Mushroom and Boodie).

Status etc. North-east to Point Samson moderately common in ones, twos or small parties; further east apparently only a scarce winter visitor. Mainly about cliffs, towns and homesteads. Breeding reported as far east as Onslow and Barrow I.: March-April and July-September; C/3(3), 4(3).

*Hirundo nigricans nigricans* Vieillot

Tree Martin

Range. Greater part of region, including Barrow I. but not sandy deserts.

Status etc. Resident, winter visitor and passage migrant. Common; usually in small parties, occasionally flocks (up to 100). Vicinity of water (river pools, mangrove creeks, freshwater soaks, saltwork ponds and sewage ponds). Breeding north to Pardoo Creek: April-September; C/2(1), 3(4), 4(2).

*Hirundo ariel* (Gould)

Fairy Martin

Range. Throughout the region, including sandy deserts.

Status etc. Formerly scarce to moderately common, now common (at least around the bridges and culverts that have proliferated in last 20 years); usually in small parties or flocks (up to 100). Mainly open country in vicinity of fresh waters and nest sites (cliffs, caves, granite rock-piles, bridges, culverts, buildings). Breeding July-September; C/3(9), 4(2).

MOTACILLIDAE

*Anthus novaeseelandiae australis* Vieillot

Richard's Pipit

Range. Throughout the region, including sandy deserts and North Turtle I., Dampier Archipelago (Legendre, Dolphin, Rosemary, Goodwyn, West Lewis, Enderby), Passage Is (Great Sandy), Montebello Is (North West, Trimouille, Hermite etc.), Lowendal Is, Barrow I., North Sandy I., Airlie I., Thevenard I. and Bessieres I.

Status etc. Locally scarce (Hamersley Range), but generally moderately to very common; in ones, twos or small parties. Sparsely vegetated country: coastal beaches and dunes, samphire and grass flats, claypans, road edges, airfields and bare ground around mills and homesteads. Breeding March-September; C/2(3), 3(11), 4(1).

*Motacilla flava simillima* Hartert

Yellow Wagtail

Range. North-eastern, west to Port Hedland and south to Shay Gap.

Status etc. Uncommon visitor (November-April) from north-east Asia; in ones, twos or small parties. Damp short grass at edge of fresh waters, especially sewage ponds.

## CAMPEPHAGIDAE

*Coracina maxima* (Rüppell) Ground Cuckoo-shrike  
Range. Southern interior, north to Coolawanyah, Woodstock and Nullagine, and west to Ullawarra.

Status etc. Uncommon visitor (mostly April-September); in ones, twos or small parties (up to 6). Breeding reported in extreme south in February, April and September; C/1-3 (A. Robinson).

*Coracina novaehollandiae subpallida* Mathews Black-faced Cuckoo-shrike  
Range. Greater part of region, north to Pardoo Creek and far western fringe of Great Sandy Desert (32 km NE of Callawa), and east to the Oakover and Jiggalong, but not far south-western coastal areas (south of Yardie Creek and west of Cardabia Creek).

Status etc. Common resident; usually in ones or twos. Mainly waterside forests and woodlands; also *Ficus platypoda* thickets at granite rock-piles. Breeding July-January and March; C/2(7), 3(7).

*Coracina novaehollandiae novaehollandiae* (Gmelin)  
Range. Throughout the region, including Depuch I. and the Dampier Archipelago (Legendre, Dolphin, Angel, Rosemary, West Lewis).

Status etc. Moderately common passage migrant and winter visitor (February-October); in ones, twos or small flocks (up to 20, consisting mostly or wholly of immatures). All wooded habitats.

*Lalage sueurii tricolor* (Swainson) White-winged Triller  
Range. Throughout the mainland; also Jarman, Legendre and Barrow Is in passage.  
Status etc. Breeding visitor and passage migrant. Locally common in some winters, but generally uncommon to moderately common; usually in ones or twos, occasionally small flocks (up to 20) in northward (autumn) passage. Lightly wooded country; attracted to flowering *Grevillea refracta* and bloodwoods. Breeding December-March and June (? late May)-September; C/1(1), 2(1), 3(2).

## PACHYCEPHALIDAE

[*Microeca leucophaea leucophaea* (Latham) Jacky Winter  
Status uncertain; perhaps a rare inhabitant of the pindan at its depauperate south-western limits. One unconfirmed record from north-east: a single bird seen by J. R. Ford on 1 July 1976 at 36 km WSW of Wallal turnoff from Great Northern Highway.]

*Petroica goodenovii* (Vigors and Horsfield) Red-capped Robin  
Range. Southern interior, north to Millstream, Hooley, the upper Coongan and Tommyhawk Creek (82 km ESE of Nullagine), and west to the Barlee Range. Also south-western coastal areas in winter, north to Exmouth Gulf.

Status etc. Resident and winter visitor. Uncommon to moderately common; in ones, twos or small parties. Mainly mulga; also other acacia scrubs. Breeding June (? May)-August (? September); C/2(1), 3(1).

*Petroica cucullata* (Latham)

Hooded Robin

Range. Southern interior, north to Millstream, Woodstock, 45 km N of Nullagine and the lower Davis (9 km NE of Rove Hills Mine), and west to the Barlee Range; also an isolated population further west on the North West Cape peninsula.

Status etc. Moderately common to common; in ones or twos. Open scrub and woodlands. Breeding March and July-August; C/2(3).

*Eopsaltria pulverulenta* (Bonaparte)

Mangrove Robin

Range. North-west coast from the Turner south-west to Exmouth Gulf (Gales Bay), including the Dampier Archipelago (Legendre, Enderby, West Lewis); casual further east (Port Hedland, Leslie Saltworks, Cape Keraudren). Formerly upper west coast at Mangrove Bay (collected by T. Carter in February 1902).

Status etc. Common; usually in pairs. Mainly *Rhizophora stylosa* forest growing on deep mud; occasionally nearby in other mangroves. Breeding August-September and apparently also in autumn; C/2(3).

*Pachycephala melanura melanura* Gould

Mangrove Golden Whistler

Range. North-west coast from Cape Keraudren south-west to Exmouth Gulf (Gales Bay), including the Dampier Archipelago (Enderby, West Lewis); casual further east (Mandora Creek). Formerly upper west coast at Mangrove Bay (collected by T. Carter in June 1902).

Status etc. Common; usually in ones or twos. Mangroves (especially canopy of *Rhizophora stylosa* forest); rarely adjacent acacia scrub. One breeding report: a nest beginning to build at Cossack on 14 September 1976.

*Pachycephala rufiventris rufiventris* (Latham)

Rufous Whistler

Range. Southern interior, north to Millstream, Abydos, 28 km ESE of Nullagine and the lower Davis (Toonconaragee Pool), and west nearly to Uaroo; casual in autumn-winter on coastal plains (Bullara, Barradale, Nickol Bay) and islands (Depuch, Montebello). Also far north-eastern coastal plains south-west to Wallal.

Status etc. Common; usually in ones, twos or small parties. In south all kinds of well-wooded country. In north-east the south-western extension of the Kimberley population is confined to *Melaleuca acacioides* scrub. Breeding December-February and April-August; C/2(2).

*Pachycephala lanioides* Gould

White-breasted Whistler

Range. North-west coast from Cape Keraudren south-west to Exmouth Gulf (Giralia Bay), including Dampier Archipelago (Legendre, Enderby, West Lewis); casual further east (Mandora Creek). Also upper west coast at Mangrove Bay.

Status etc. Common; usually in pairs. Mangroves. Breeding September (? late August)-October; C/1(1), 2(17).

*Colluricincla harmonica rufiventris* Gould Grey Shrike-thrush  
Range. Interior, north to far western fringe of Great Sandy Desert (2 km SW of Bulgamulgardy Soak) and west to Shay Gap, Abydos, Mt Herbert, Yarraloola, Cane River and the Barlee Range (Kookhabinna Gorge); also an isolated population further west in the Cape Range, south to Yardie Creek and Learmonth.  
Status etc. Moderately common in the Cape Range and far southern interior, uncommon further north; usually in ones or twos. All well-wooded habitats. Breeding March-early April and June-early October; C/2(10), 3(2).  
Taxonomy. As first noticed by N. Kolichis, birds from the Cape Range are smaller than those from elsewhere.

*Oreoica gutturalis* (Vigors and Horsfield) Crested Bellbird  
Range. Greater part of region, but not north-west coastal lowlands north of Marrilla and Barradale or west of Cane River, the lower Fortescue (at North-West Coastal Highway), the lower Yule (30 km SE of Mundabullangana), Carlindi and Callawa.  
Status etc. Moderately common; in ones or twos. Mainly mulga and other acacia scrubs. Breeding March-April and June-September; C/2(4), 3(8), 4(1).

*Psophodes occidentalis* (Mathews) Western Wedgebill  
Range. Upper west coast and hinterland, north to Low Point and east to Qualing Pool, Learmonth [and the lower Lyndon at the North-west Coastal Highway]; far southern interior about Wannery Creek (Old Ullawarra to 20 km northwards) and the middle Ashburton (50 km SE of Kooline and Ashburton Downs); and eastern interior near Nullagine.  
Status etc. Locally common; in ones or twos. Acacia thickets and scrubs, especially in stony country. Breeding February-April and July-August; C/2(2), 3(4).

## MONARCHIDAE

*Rhipidura phasiana* DeVis Mangrove Grey Fantail  
Range. North-west coast from Mandora Creek south-west to Exmouth Gulf (Giralia Bay), including the Dampier Archipelago (Legendre, West Lewis, Enderby). Also upper west coast at Mangrove Bay.

Status etc. Common; in ones, twos or small parties. Mangroves (especially *Avicennia marina*); occasionally adjacent acacia thickets. Breeding in spring.

*Rhipidura fuliginosa alisteri* Mathews Grey Fantail  
Status. Rare winter visitor from south-eastern Australia. One record: a specimen collected by R. E. and C. Johnstone on 27 August 1980 in dense mulga 6 km E of Mt Bruce.

*Rhipidura fuliginosa preissi* Cabanis  
Range. South-western half of region, north-east to Depuch I., Millstream and Milli Milli Spring (38 km SE of Tom Price).  
Status etc. Uncommon autumn-winter visitor (late March-early August) from south-

western Australia; usually single. Dense mulga and other thickets, riverside forests and mangroves.

*Rhipidura fuliginosa albicauda* North

Range. South-eastern sector of Hamersley Range, about Mt Bruce and Mt Meharry. Status uncertain; perhaps resident, but only recorded in November 1981. Uncommon; in pairs. Dense mulga flats with emergent eucalypts (coolabahs or bloodwoods).

*Rhipidura leucophrys leucophrys* (Latham)

Willie Wagtail

Range etc. As a winter visitor and passage migrant (April-October) common and occurring throughout the region, including sandy deserts, Depuch I., Dampier Archipelago (Legendre, Gidley, Dolphin, Angel, West Lewis, Enderby), Great Sandy I. and Airlie I.; usually single, occasionally in small parties; most lightly wooded habitats, including edge of mangroves. As a breeding bird, uncommon and largely confined to southern interior, north to the lower Fortescue and upper Coongan; mostly in pairs; usually lightly wooded country beside water. Breeding September-February; C/2(3), 3(7), 4(1).

*Myiagra alecto* (Temminck)

Shining Flycatcher

Status uncertain; a few records from a very small sector of north-west coast. T. E. Bush saw a female at Point Samson on 10 September 1976 and three days later a pair near Cossack. On 7 October 1975 R. E. Johnstone heard what he later concluded was this species in mangroves 2 km SW of Cossack. In the 1960s I. C. Carnaby reported a female in the same mangroves.

## ORTHONYCHIDAE

*Cinlosoma castaneothorax marginatum* Sharpe

Chestnut-breasted Quail-thrush

Range. South-western interior, north to Wannery Creek (23 km SSE of Glen Florrie) and Rocklea, west to the Barlee Range, and east to Bellary Creek (30 km S of Tom Price) and Divide Creek (38 km WNW of Turee Creek HS); and far south-east north to the lower Davis (22°S) and west to Tommyhawk Creek (82 km ESE of Nullagine) and 10 km W of Jiggalong.

Status etc. Moderately common; usually in pairs. Lightly wooded, stony country with scattered bushes. Breeding late April-July; C/2(3).

*Pomatostomus temporalis* (Vigors and Horsfield)

Grey-crowned Babbler

Range. Interior, north to DeGrey HS, east to Shay Gap, Warrawagine, Braeside, the upper Oakover (Junction Well) and Jiggalong, and west to Strelley, the lower Turner (at North-west Coastal Highway), Whim Creek, the lower Maitland (Karratha HS), Deepdale, the lower Ashburton (15 km SSE of mouth), the lower Yannarie (Yanrey) and the lower Lyndon.

Status etc. Uncommon to moderately common; usually in small parties (up to 10). Mainly open woodlands and scrubs on riverine flats. Breeding late March-early September; C/2(1), 3(3), 4(1).

*Pomatostomus superciliosus* (Vigors and Horsfield) White-browed Babbler  
Range. Southern interior, north to the Hardey River (9 km SSW of Rocklea), west to upper Wannery Creek, and east to Paraburdoo.  
Status etc. Scarce; in small parties. Mulga, wattle and other acacia thickets. Breeding March-April; C/2(1), 3(2).

#### ACANTHIZIDAE

*Aphelocephala nigricincta* (North) Banded Whiteface  
Range. Far south-east, north to the upper Oakover (Junction Well) and west nearly to Newman.  
Status etc. Scarce. Breeding March and August; C/2(1); parasitised by *Chrysococcyx basalis* (1 record).

*Gerygone fusca fusca* (Gould) Western Flyeater  
Range. Much of interior, north to far western fringe of Great Sandy Desert (10 km NE of Bulgamulgardy Soak), west to Millstream, Boolgeeda Creek (W of Mt Brockman) and Wannery Creek, and east to the upper Oakover (Junction Well).  
Status etc. Autumn-winter visitor (April-August) from south-western Australia. Common in higher central and south-eastern parts of Hamersley Range (around Mts Brockman, Bruce and Trevarton), scarce to uncommon elsewhere; in ones or twos. Most kinds of well-wooded habitat, e.g. mulga, wattle and other acacia thickets and the denser eucalypt woodlands. Its habitat preferences are much the same as those of the resident *G. f. mungi*, with which it commonly co-exists in winter.

*Gerygone fusca mungi* Mathews  
Range. Southern interior, north to the central and eastern sectors of the Hamersley Range (Hamersley and Dales Gorge) and the upper Oakover (Junction Well), and west to the upper Hardey (9 km SW of Rocklea).  
Status etc. Common in well-watered highlands, uncommon and patchily distributed in drier parts of range; in ones, twos or small parties. Mainly tall mulga scrub, mulga-coolabah woodlands, and *Acacia citrinoviridis* and other wattle thickets along watercourses. One breeding report: September; C/2.

*Gerygone tenebrosa* (Hall) Dusky Flyeater  
Range. North-west coast from Cape Keraudren south-west to Exmouth Gulf (Giralia Bay), including the Dampier Archipelago (Legendre, Enderby, West Lewis). Also upper west coast at Mangrove Bay.  
Status etc. Common; usually in ones or twos. Mangroves. Breeding September-October; C/2(11).

*Smicronis brevirostris* (Gould) Weebill  
Range. Interior, north to the DeGrey, east to the Oakover and Jiggalong, and west generally to the Great Northern Highway at the DeGrey, the North-west Coastal Highway at the Turner, to Millstream, Wackilina Creek (30 km W of Mt Brockman HS), the Hardey (Kazput Pool) and Ashburton Downs; with isolated occurrences

further west, e.g. the lower Fortescue (Post Office Pool), the lower Robe (Yarraloola) and the lower Yannarie (Barradale); but absent from much of the middle and lower Ashburton.

Status etc. Common in well-watered highlands (Chichester and Hamersley Ranges), scarce to moderately common elsewhere; usually in pairs or small parties. Mostly river gum forests and woodlands; also other eucalypt woodlands (snappy gum, white gum, coolabah or bloodwood) and mulga flats with emergent eucalypts. Breeding in August.

*Acanthiza (pusilla) apicalis* Gould Broad-tailed Thornbill

Range. Highlands of southern interior: Hamersley and Ophthalmia Ranges from Hamersley east to 20 km ESE of Rhodes Ridge Mining Camp. [A. Robinson's record of 'Brown' Thornbill eggs from Old Ullawarra is obviously a lapse for the Chestnut-tailed, the only thornbill he listed for the area (*Emu* 38: 464).]

Status etc. Moderately common; usually in pairs. Tall dense mulga, and wattle and melaleuca thickets along watercourses.

*Acanthiza robustirostris* Milligan Slaty-backed Thornbill

Range. Southern interior, north to Hooley and the lower Davis (8 km NE of Rove Hills Mine), and west to Hamersley, Rocklea and the head of Wannery Creek (18 km SSW of Old Ullawarra).

Status etc. Moderately common; in pairs or small parties. Mainly canopy of tall mulga, especially on flats and watercourses. One breeding report (Bellary Creek): late July or early August.

*Acanthiza uropygialis* Gould Chestnut-rumped Thornbill

Range. Southern interior, west to Cardabia Creek and north to Glen Florrie, Mt Brockman HS, Hooley and the lower Davis (5 km NE of Rove Hills Mine).

Status etc. Common; usually in pairs or small parties. Mainly mulga, wattle and other acacia scrubs and thickets, especially along watercourses. Breeding August-September; C/2-4 (A. Robinson).

*Acanthiza chrysorrhoa* (Quoy and Gaimard) Yellow-rumped Thornbill

Range. Only known from two localities in south-eastern highlands, viz. a grassy mulga-coolabah flat 9 km ESE of Mt Bruce, and mulga scrub at Newman.

*Pyrholaemus brunneus* Gould Redthroat

Range. Far south, north to Point Maud, Winning, 26 km ENE of Nanutarra, 29 km ESE of Tom Price, Juna Downs and Jiggalong; also apparently isolated populations a little further north at south end of Exmouth Gulf (Gales Bay and Giralia Bay) and much further north at south end of Regnard Bay (mouth of Devil Creek).

Status etc. Moderately common on coast and locally in interior (Wannery Creek and Bellary Creek), but generally scarce and patchily distributed; in pairs or small parties. Acacia scrubs and thickets on coastal dunes and along watercourses. Breeding March and July; C/2(1), 3(1); parasitized by *Chrysococcyx osculans* (2 records).



*Calamanthus fuliginosus campestris* (Gould) Striated Fieldwren  
Range. Upper west coast and hinterland, north nearly to Vlaming Head and east to the Minilya-Exmouth road. Also patchily in southern interior: *Triodia* sandplains about the lower Henry; east of Bonney Downs; and *Triodia* on gibber plains at Jiggalong.  
Status etc. Common in coastal areas, rare in interior; in ones or twos. Low dune scrub, *Triodia* and samphire. Breeding June-late August; C/3(2).

## MALURIDAE

*Amytornis striatus whitei* Mathews Striated Grasswren  
Range. Hilly interior, north to Mt Herbert, the upper Turner and upper Coongan, east to Marble Bar, Wickham Creek (50 km ESE of Nullagine and Mt Newman, and west to the western Hamersley Range and Barlee Range. Also further west in the Cape Range about the sources of Yardie Creek.  
Status etc. Uncommon and patchily distributed; in pairs or family parties. *Triodia* in rocky or stony country. Breeding March-August.

*Stipiturus ruficeps ruficeps* Campbell Rufous-crowned Emu-wren  
Range. Western interior, north to Pyramid and Abydos, east to Mt Meharry and Turee Creek (Coppin Pool), and west to Red Hill and the Barlee Range; and an isolated population further west on the North-west Cape peninsula, south to Yardie Creek and Learmonth.  
Status etc. Locally moderately common, e.g. at Tambrey and Learmonth, but generally uncommon and patchily distributed; in pairs or family parties. Large, dense clumps of *Triodia*, usually on drainage lines and watercourses and often mixed with shrubs (*Acacia*, *Cassia*, etc.). Breeding August-September (? October); C/2(1), 3(4).

*Malurus lamberti assimilis* North Variegated Fairy-wren  
Range. Throughout the mainland.  
Status etc. Locally uncommon, e.g. on some of the open coastal plains between the DeGrey and the Ashburton, but generally common; usually in family parties. All kinds of shrubland, thicket and scrub, including mangroves. Breeding February-March and presumably July-August; C/4(1); parasitized by *Chrysococcyx basalis* (1 record).

*Malurus leucopterus leuconotus* Gould White-winged Fairy-wren  
Range. Greater part of region, north to at least Mandora Creek and the saltmarsh 16 km ENE of Sandfire.  
Status etc. Uncommon in hilly country, moderately common on plains; in pairs or family parties. Low vegetation: *Triodia*, samphire, coastal heath and other low shrublands, *Spinifex longifolius*, roly poly (*Salsola kali*), and long grass. Breeding early March-early November; C/2(1), 3(2), 4(2).

***Malurus leucopterus edouardi* Campbell**

Range. Barrow I.

Status etc. Moderately common. Open hummock grasslands: *Triodia* alone or mixed with *Spinifex longifolius*. Breeding April-September; C/3(3), 4(1).

Taxonomy. See Schodde (1982, *The Fairy-wrens*, p.114).

***Malurus melanocephalus* (Latham)**

Red-backed Fairy-wren

Range. Far north-eastern coastal plains west to Pardoo.

Status etc. Locally moderately common (Cape Keraudren), but generally scarce and patchily distributed; in ones, twos or family parties. *Triodia* mixed with shrubs (stunted *Acacia* and *Melaleuca*); also *Spinifex longifolius* in coastal dunes.

**SYLVIIDAE**

***Acrocephalus stentoreus australis* (Gould)**

Clamorous Reed Warbler

Range. Mainly coastal and riverine plains, north to Strelley, east to Shay Gap, Tambourah Pool, Wittenoom Gorge, Tom Price and Paraburdoo, and west to the North-west Coastal Highway (at the Yule and the Sherlock), Roebourne, the lower Maitland (near Karratha HS), the lower Ashburton (near Nanutarra) and Winning.

Status etc. Locally common (Millstream), but generally uncommon and patchily distributed. Mainly *Typha* and sedges around permanent river pools; also sewage ponds and claypans. Breeding October and (?) early November.

***Eremiornis carteri* North**

Spinifex-bird

Range. Interior, north to Millstream, Woodstock, Marble Bar and Braeside, and west to Deepdale and the Barlee Range. Also the Montebello Is (Trimouille, Hermite), Barrow I. (including Double), Thevenard I. and the North West Cape peninsula (south to Yardie Creek and the Rough Range).

Status etc. Moderately common; usually in pairs. Dense spinifex (*Triodia*, *Plectrachne*) and adjacent shrubs; also *Spinifex longifolius* in coastal dunes. Breeding March-September; C/2(1), 3(6).

***Megalurus gramineus* (Gould)**

Little Grassbird

Status uncertain; probably a rare non-breeding visitor. On 16 and 17 July 1980 R. E. Johnstone heard a single bird calling from samphire at Mangrove Bay. On 5 November 1981 he and L. A. Smith collected one of ca 8 birds in inundated dead roly poly (*Salsola kali*) at the Newman sewage ponds; on 29 November 1981 they heard one in the same area and collected it, an immature male.

***Cincloramphus mathewsi* Iredale**

Rufous Songlark

Range. Greater part of region, including sandy deserts but not south-western coastal areas west of Bay of Rest (Exmouth Gulf) and Cardabia Creek.

Status etc. Uncommon to moderately common visitor (outnumbering *C. cruralis* in hilly, better-wooded country); in ones or twos. Lightly wooded grasslands (including *Triodia*), especially flats beside watercourses. Breeding February-July; C/3(3), 4(2).

*Cincloramphus cruralis* (Vigors and Horsfield) Brown Songlark  
Range. Throughout the region, including West Lewis and Barrow Is.

Status etc. Uncommon to common visitor (outnumbering *C. mathewsi* on coastal and broad riverine plains); in ones or twos. Treeless or sparsely wooded grassy plains (including *Triodia*). Breeding March (? February)-August; C/4(2).

*Cisticola exilis exilis* (Vigors and Horsfield) Golden-headed Fantail Warbler  
Range etc. Only recorded at Millstream on the Fortescue, where F. L. Whitlock collected 8 specimens (including immatures) in the 'reedbeds below the spring' between 25 August and 10 September 1922 and G. F. Mees collected 2 specimens on 22 and 24 July 1958.

#### DAPHOENOSITTIDAE

*Daphoenositta chrysoptera pileata* (Gould) Australian Sittella  
Range. Southern interior, north to Millstream, the upper Coongan and the lower Davis (22°S), and west to the hinterland of Point Cloates.

Status etc. Moderately common in the Hamersley Range, but generally uncommon and patchily distributed; in pairs or small parties. Mainly tall mulga; also other acacia scrubs, mulga-eucalypt woodlands and mallee. Breeding March-April and September-October; C/3(2).

#### CLIMACTERIDAE

*Climacteris melanura wellsi* Ogilvie-Grant Black-tailed Tree-creeper  
Range. Interior, north to the DeGrey, east to the Oakover, west to the Great Northern Highway at the DeGrey, to Millstream and the lower Ashburton (Jundelaya Hill), and south to the Barlee Range, the middle Ashburton (Ashburton Downs), Turee Creek (Nanjilgardy Pool), the upper Fortescue (24 km NE of Newman) and the upper Oakover (Junction Well).

Status etc. Uncommon to moderately common; in ones, twos or small parties. Mainly eucalypt woodlands (snappy gums, river gums on minor watercourses, coolabahs and bloodwoods); also tall mulga. Breeding August and (?) early September; C/1(1), B/3(1).

#### DICAEIDAE

*Dicaeum hirundinaceum hirundinaceum* (Shaw) Mistletoebird  
Range. Greater part of region, but not sandy deserts or south-western coastal areas south of Yardie Creek.

Status etc. Moderately common in the Hamersley, Barlee and Cape Ranges and in mangroves, uncommon elsewhere; in ones or twos. Most well-wooded habitats. Breeding July-late August (? early September).

## PARDALOTIDAE

### *Pardalotus rubricatus* Gould

Red-browed Pardalote

Range. Greater part of region, but not sandy deserts or south-western coastal areas south of Yardie Creek.

Status etc. Moderately common to common; in ones or twos. Canopy of eucalypts, especially river gums. Breeding June-October; C/2(10), 3(7).

### *Pardalotus striatus murchisoni* Mathews

Striated Pardalote

Range. Greater part of region, north to the DeGrey, east to the Oakover and Jiggalong, and west to the lower Ashburton (Minderoo) and lower Yannarie (Barradale); also Depuch I.

Status etc. Common in the Hamersley Range, uncommon to moderately common elsewhere; in ones, twos or small parties (up to 8). Canopy of eucalypts (river gums, snappy gums, coolabahs etc.). Breeding April-May.

### *Pardalotus striatus westraliensis* Mathews

Status uncertain; possibly a scarce winter visitor from south-western Australia to southern interior of region. Two specimens (WAM A8234 and 17098), collected respectively at Tambrey on 28 August 1958 and in Wittenoom Gorge on 15 July 1981, are tentatively identified with this subspecies, although a little paler than typical specimens.

Taxonomy. This subspecies, synonymized with *P. s. murchisoni* by Mayr and Hindwood (1946, *Emu* 46: 49), is restored for the populations breeding south of the mulga-eucalypt line. In all plumages they differ from *murchisoni* in being considerably darker: in adults the mantle is olive-grey tinged with rufous, v. pale grey with scarcely any olive or rufous tinge; the rump and tail coverts are of a darker shade of reddish-brown; and the flanks are brown or brownish-grey, v. pale buff.

## ZOSTEROPIDAE

### *Zosterops lutea* Gould

Yellow White-eye

Range. Most coasts north to Mandora Creek, including Depuch I., Dampier Archipelago (Legendre, Dolphin, Enderby, West Lewis), the Passage Is (North Sandy, Great Sandy), the Montebello Is (Trimouille, Hermite), Lowendal Is, Barrow I., Weld I., Airlie I., Thevenard I. and Bessieres I. Occasionally ascending larger rivers, viz. the Yule to the North-west Coastal Highway, the Maitland to Karratha HS, and the Fortescue to Millstream.

Status etc. Common; usually in ones, twos or small parties, occasionally flocks (up to 50). Mainly mangroves; also dune scrub and near-coastal thickets and woodlands (*Acacia coriacea*, *Ficus platypoda*, flowering *Eucalyptus brevifolia*) and riverside forests (*Melaleuca leucadendron*, *Sesbania formosa*). Breeding June (? late May)-August (? early September); C/2(1), 3(2).

### *Zosterops lateralis gouldi* Bonaparte

Grey-breasted White-eye

Range. Far south-west coast, north to Point Cloates.

Status. Rare visitor. T. Carter (1903, *Emu* 3: 91) saw it 'once or twice', and A. M. Douglas and G. F. Mees collected a specimen (WAM A8384) at Point Cloates on 10 August 1959.

## MELIPHAGIDAE

*Lichmera indistincta indistincta* (Vigors and Horsfield) Brown Honeyeater

Range. Greater part of region, including the Dampier Archipelago (Dolphin, Angel, Enderby, West Lewis) and Hermite I., but not the south-western lowlands south of Yardie Creek, Exmouth and Nanutarra.

Status etc. Locally uncommon, but generally common; in ones, twos or small flocks. Well-wooded habitats, especially mangroves, riverside forests and creekside thickets and scrubs; attracted to flowering trees, shrubs, mistletoes and herbs (*Melaleuca leucadendron*, *Eucalyptus camaldulensis*, bloodwoods, *Bruguiera exaristata*, *Ceriops tagal*, *Erythrina vespertilio*, *Grevillea refracta*, *G. wickhami*, *A. salicina* and other acacias, *Gardenia*, *Cassia*, *Crotalaria* and Sturt pea). Breeding March and spring.

*Certhionyx niger* (Gould) Black Honeyeater

Range. Throughout the region.

Status etc. Irregular visitor (April-November, mostly winter). Locally and seasonally common, e.g. on the North West Cape peninsula in June 1902 and August 1970, around Onslow in June 1923, and in the far east (from Mandora south to the Rove Hills) in April-July 1979, but generally scarce; usually in ones or twos, occasionally flocks (up to 30). Attracted to flowering acacias, *Grevillea refracta*, *Eucalyptus camaldulensis* and bloodwoods. Breeding July-August and ? May; C/2(5).

*Certhionyx variegatus* Lesson Pied Honeyeater

Range. Southern and eastern, north and west to North West Cape, Koordarrie, the Parry Range (26 km N of Nanutarra), Millstream, the Chichester Range, 27 km ESE of Nullagine, 4 km N of Two Sisters, and far western fringe of Great Sandy Desert (Bulgamulgardy Soak).

Status etc. Locally and seasonally common (e.g. North West Cape in June 1902, far south-western coastal areas in August 1916, and far western fringe of Great Sandy Desert in April and May 1979 and November 1980), but generally uncommon; usually in ones, twos or family parties, occasionally flocks (up to 50). Dune scrub and other lightly wooded habitats; attracted to flowering *Grevillea refracta* and bloodwoods. Breeding July (exceptionally late June)-August; C/2(2), 3(3).

*Meliphaga virescens* (Vieillot) Singing Honeyeater

Range. Throughout the region, including Depuch I., the Dampier Archipelago (Legendre, Dolphin, Angel, Rosemary, Enderby, West Lewis), Great Sandy I. and Barrow I. (including Mushroom and Double).

Status etc. Common; usually in ones or twos, occasionally small parties. All kinds of thicket and scrub, including mangroves and plantings of athel trees (*Tamarix aphylla*): attracted to flowering *Grevillea refracta*, *Hakea suberea*, *Pittosporum*

*phylliraeoides* and bloodwoods. Breeding January-March and June-October; C/2(12), 3(2).

***Meliphaga keartlandi*** (North) Grey-headed Honeyeater  
Range. Mainly the interior, west to Bulgamulgardy Soak, Shay Gap, Carlindi, Whim Creek, Withnell Bay, Deepdale and Cane River, and south to Nanutarra, Tom Price and Newman; with isolated populations on Depuch I. and the Cape Range (south to Yardie Creek and Learmonth).

Status etc. Locally common, but generally uncommon to moderately common and patchily distributed; in ones, twos or small flocks (up to 20). Mainly copses of eucalypts (snappy gums, bloodwoods and stunted river gums) and tall shrubs in stony, hilly country; also well-wooded sandplains; attracted to flowering shrubs and trees (*Grevillea wickhami*, *G. refracta*, *Hakea suberea*, *Eucalyptus brevifolia*, bloodwoods and river gums) and fruiting figs (*F. platypoda*). Breeding March-April and July-September; C/2(16).

Most, if not all, of the few scattered records of *Meliphaga plumula* (Gould) are probably based on imperfect sightings of the present species.

***Meliphaga penicillata*** Gould White-plumed Honeyeater  
Range. Generally north to Pardoo Creek and the DeGrey, and east to the Oakover and Jiggalong; also oases in far western fringe of Great Sandy Desert (Bulgamulgardy Soak).

Status etc. Very common; in ones, twos or small flocks. Mainly river gums, but commonly visiting other woodlands and scrubs in vicinity of watercourses and wells; attracted to flowering river gums, bloodwoods, *Hakea suberea* and *Erythrina vespertilio*. Breeding February-October; C/2(24), 3(6).

***Melithreptus gularis laetior*** Gould Black-chinned Honeyeater  
Range. Mainly interior, north to far western fringe of Great Sandy Desert (29 km NE of Callawa), Shay Gap, the lower Shaw (Depot Creek), the lower Harding (Pinanular Pool) and the lower Maitland (Karratha HS), south to the Robe (5 km E of Deepdale) and the Hamersley and Ophthalmia Ranges, and east to the Oakover and the Davis. Also far north of North West Cape peninsula (T. Carter collected two of a party of six near Exmouth on 18 June 1902).

Status etc. Locally moderately common, but generally uncommon and patchily distributed; usually in small parties. Mainly waterside thickets of eucalypts, melaleucas and acacias; attracted to flowering river gums and bloodwoods. Breeding *ca* June.

***Phylidonyris albifrons*** (Gould) White-fronted Honeyeater  
Range. Southern and eastern, north and west to Yardie Creek, 12 km N of Barradale, 15 km N of Cane River, 21 km WNW of Tom Price, Mt Bruce, Nullagine and 37 km SE of Wallal.

Status etc. Irregular visitor (April-November). Locally common in some years, e.g. Point Cloates area in 1898 and Barlee Range in 1933, but generally scarce; in ones, twos or small parties. Lightly wooded country with flowering herbs, shrubs, mistletoes and trees, e.g. *Trichodesma zeylanicum*, *Grevillea refracta*, *Hakea suberea*,

*Acacia* sp., *Eremophila fraseri* and bloodwoods. One breeding report (near Point Cloates): July.

***Lacustroica whitei*** North Grey Honeyeater

Range. Southern interior, north to the Hamersley Range and the upper Oakover (Junction Well), and west to Mt Brockman HS [and the Barlee Range (14 km NNE of Edmund)].

Status etc. Locally moderately common, e.g. around Tom Price, but generally scarce; usually in ones or twos. Scrubs and thickets of mulga, *A. citrinoviridis* and other acacias. No nest reports, but copulation observed on 1 August.

***Manorina flavigula*** (Gould) Yellow-throated Miner

Range. Greater part of region, including Dolphin I., but not the upper west coast and its immediate hinterland south of North West Cape.

Status etc. Common; usually in pairs or small parties (up to 12). All well-wooded habitats, including towns and homesteads; attracted to flowering *Erythrina vespertilio*, bloodwoods, *Grevillea wickhami* and *Acacia*. Breeding March-September; C/2(4), 3(9), 4(2).

***Acanthagenys rufogularis*** Gould Spiny-cheeked Honeyeater

Range. Greater part of region, north to Sherlock, the lower DeGrey (at Great Northern Highway) and Shay Gap; accidental on Barrow I.

Status etc. Locally moderately common in south, e.g. in the Cape, Barlee, Hamersley and Ophthalmia Ranges, but generally scarce; in ones, twos or small flocks. Mulga, wattle and other acacia scrubs, mangroves and teatree thickets; attracted to flowering *Erythrina vespertilio*. Breeding February-April and July-September; C/2(3), 3(1).

***Epthianura albifrons*** (Jardine and Selby) White-fronted Chat

One record from far south-west: flocks noted at Point Cloates from 14 February to 10 May 1899 (T. Carter 1903, *Emu* 3: 89).

***Epthianura aurifrons*** Gould Orange Chat

Range. Coastal plains, north to Pardoo and inland to Roebourne, Karratha HS, 17 km SSE of Onslow and the Minilya-Exmouth road (7 km NNE of Warroora). Also far south-east at Newman and Jiggalong.

Status etc. Locally common, but generally uncommon; usually in pairs or small flocks (up to 20). Mainly samphire flats; also crab-hole country and edge of sewage ponds. Breeding July-August; C/3(1).

***Epthianura tricolor*** Gould Crimson Chat

Range. Throughout the mainland; casual on Hermite and Barrow Is.

Status etc. Irregular visitor, numbers varying according to rainfall. Uncommon to very common; usually in flocks (up to 40). Sparsely wooded country, especially short-grass flats, *Triodia* plains regenerating after fire, and samphire flats. Breeding February-April and July-September; C/2(6), 3(1), 4(6); parasitized by *Chrysococcyx basalis* (2 records).

## PLOCEIDAE

### *Emblema pictum* Gould

Painted Finch

Range. Greater part of region, west to the lower Fortescue (Post Office Pool), Warrambo, the Parry Range (15 km N of Nanutarra) and the Barlee Range; including rocky inshore islands (Depuch, Angel, West Lewis), but not far north-eastern interior (western fringe of Great Sandy Desert); with an isolated population further west on the North West Cape peninsula, south to Yardie Creek and Learmonth. Casual in south-western coastal lowlands (Onslow) and on Barrow I.

Status etc. Common; usually in pairs or flocks, often much larger aggregations (up to 500) at water. Mainly rocky hills or stony country with *Triodia*, but commonly dispersing to adjacent plains when gully pools dry up. Breeding March-September; C/2(1), 3(10), 4(8), 5(2).

### *Neochmia ruficauda clarescens* (Hartert)

Star Finch

Range. Greater part of region, from the DeGrey south-west to the lower Ashburton and Barlee Range, and east to the upper Coongan and Turee Creek (Coppin Pool).

Status etc. Locally common, but generally uncommon and patchily distributed; usually in pairs or small flocks (up to 30). Mainly *Typha*, rushes, long grass, *Phragmites* and shrubs about permanent pools on the larger watercourses, viz. the DeGrey-Coongan, the Turner, the Yule, the Sherlock, the Harding, the Maitland, the Fortescue (upstream to Millstream), Peter Creek, the Robe and the Ashburton (including Kookhabinna Creek, Wackilina Creek, Hardey River, Bellary Creek and Turee Creek); also recorded at Karratha and Paraburdoo sewage ponds and in rank herbage at Onslow. Breeding March-July (? early August); C/3(1), 4(2), 5(1), 6(1), 7(1).

### *Poephila guttata castanotis* (Gould)

Zebra Finch

Range. Throughout the region, including West Lewis, Trimouille, South East and Barrow Is. and far western fringe of Great Sandy Desert. Casual on the Montebello Is.

Status etc. Very common (much the most plentiful bird in the region); usually in pairs or small flocks, often in hundreds at water. Treeless to lightly wooded grasslands (including *Triodia*) in vicinity of water, especially stock-watering troughs. Breeding February-November; C/3(4), 4(12), 5(2), 6(2).

## GRALLINIDAE

### *Grallina cyanoleuca* (Latham)

Australian Magpie-lark

Range. Throughout the mainland, except far north-eastern interior (western fringe of Great Sandy Desert); also Dolphin and Barrow Is in passage.

Status etc. Moderately common, with apparently a considerable influx of visitors in autumn and winter; in ones, twos or small parties. Sparsely vegetated flats in vicinity of tall trees and water (for nest mud). Breeding late August-April (? early May); C/3(1), 4(5), 5(2).



## ARTAMIDAE

*Artamus leucorhynchus* (Linnaeus) White-breasted Woodswallow

Range. North-west coast (including tidal creeks, lower courses of rivers and Legendre, Rosemary, West Lewis, the Montebello, the Lowendal, Barrow, North Sandy, Great Sandy, Airlie, Thevenard and Bessieres Is) from Mandora Creek south-west to Giralia Bay (Exmouth Gulf). Also upper west coast at Mangrove Bay and on the middle Fortescue at Millstream.

Status etc. Common; usually in ones, twos or family parties, occasionally small flocks (up to 20). Mainly in and near mangroves; also in towns and about homesteads and tall river gums at permanent pools. Breeding September-October; C/2(4), 3(6).

*Artamus personatus* (Gould) Masked Woodswallow

Range. Throughout the region, including Barrow I.

Status etc. Nomadic visitor. Locally and seasonally uncommon to very common; usually in small flocks, occasionally large flocks (up to 1000). Lightly wooded country; attracted to flowering shrubs and trees (*Grevillea eriostachya*, *G. refracta*, *G. wickhami*, *Hakea suberea*, *Eucalyptus microtheca*, *E. dichromophloia*). Breeding March, August-October, December and ? January; C/2(7), 3(3).

*Artamus cinereus melanops* Gould Black-faced Woodswallow

Range. Throughout the region, including Barrow I. (where it has bred) and Dolphin I.

Status etc. Very common (exceeded in abundance only by the Zebra Finch); usually in ones, twos or small parties, rarely small flocks (up to 30). Lightly wooded country, especially on plains; occasionally attracted to flowering bloodwoods. Breeding July-October and December-April; C/2(6), 3(4), 4(2).

*Artamus minor* Vieillot Little Woodswallow

Range. Greater part of region, north to Mandora and west to Cape Keraudren, the Ord Ranges, Depuch I., Point Samson, Dampier, Yarraloola, Uaroo and the Barlee Range; with an isolated population further west in the Cape Range, south to Yardie Creek and Learmonth.

Status etc. Moderately common in hilly country, uncommon and patchily distributed in flatlands; in ones, twos or small parties (up to 10). Usually about cliffs (in gorges, at breakways and on rocky coasts) and granite outcrops. Breeding August-October and December-January; C/2(3), 3(4).

## CRACTICIDAE

*Cracticus torquatus torquatus* (Latham) Grey Butcherbird

Range. Southern interior, west to the Barlee Range and north to Glen Florrie, Hamersley, the eastern Chichester Range (near Cowra) and Wickham Creek (67 km ESE of Nullagine).

Status etc. Uncommon to moderately common; in ones or twos. Moderately tall dense mulga, sometimes with emergent eucalypts (coolabahs or bloodwoods). Breeding July-August; C/2(1), 3(1), 4(1).

*Cracticus nigrogularis* (Gould)

Pied Butcherbird

Range. Greater part of region, including Depuch I. and the Dampier Archipelago (Dolphin, Angel, Rosemary, Elphick Nob, Goodwyn, Enderby, West Lewis), but absent from much coastal country.

Status etc. Locally scarce, e.g. on coastal plains where vegetation tends to alternate between gallery forests and treeless grasslands, but generally moderately common; usually in ones or twos. Lightly wooded country. Breeding July-October; C/2(3), 3(4), 4(3).

*Cracticus tibicen tibicen* (Latham)

Australian Magpie

Range. Interior, north to Mundabullangana and Callawa, and west to the Burrup Peninsula, Yarraloola, Jundelaya Hill, 22 km SW of Barradale [and the Lyndon at North-west Coastal Highway].

Status etc. Moderately common in gently hilly parts of the far southern interior, uncommon to moderately common in similar country north of the Fortescue, scarce on inland riverine plains, absent from most coastal plains. Usually in pairs or family parties. Lightly wooded country with low, sparse ground-cover, e.g. burnt country and around mills and homesteads. Breeding late June-October; C/1(2), 2(1), 3(4), 4(8).

#### PTILONORHYNCHIDAE

*Ptilonorhynchus maculatus guttatus* (Gould)

Spotted Bowerbird

Range. Greater part of region, north to the lower DeGrey (2 km S of DeGrey HS), Shay Gap and far western fringe of Great Sandy Desert (sandstone knoll 29 km NE of Callawa), east to the Oakover (Carawine Gorge), the lower Davis (Tooncoonaragee Pool), Kurrana Well, the eastern end of the Chichester Range (18 km S of Bonney Downs) and the upper Fortescue (at the Great Northern Highway), and west to the Burrup Peninsula, Deepdale and the Barlee Range; with an isolated population further west on the North West Cape peninsula, south to Yardie Creek and Learmonth.

Status etc. Uncommon; in ones, twos or small parties. Copses of trees and shrubs, including drupiferous species (especially *Ficus platypoda*, *F. orbicularis*, *Santalum lanceolatum* and *Securinega melanthesoides*) in vicinity of water and mainly in rocky country; commonly visiting fruiting trees in homestead gardens. Breeding July-September; C/1(7), 2(24). For diet in Chichester Range see G. Binsted (1978, *West. Aust. Nat.* 14: 77).

#### CORVIDAE

*Corvus orru salvadorii* Finsch

Australian Crow

Range. Greater part of region, north to Pardoo and the DeGrey, and east to the Oakover and Jigalong; also (but ? species) the Dampier Archipelago.

Status etc. Common in well-watered, well-wooded country, uncommon to moderately common in sparsely wooded, far south-west (south and west of the Yannarie) and poorly watered, far south-east (east of the upper Fortescue); usually in ones or twos,

occasionally small parties, rarely small flocks (up to 20). Vicinity of tall trees (for nesting) and water; attracted to road-kills. Breeding late June-November; C/4(1), 5(4), 7(1).

*Corvus bennetti* North

Little Crow

Range. Throughout the mainland; casual on Depuch and Barrow Is.

Status etc. Nomadic, e.g. two birds banded at Jiggalong in June by E. Lindgren (1961, *West. Aust. Nat.* 7: 174) were recovered near Laverton and Menzies, respectively 650 km SSE and 720 km S, 5 and 10 months later. Common in ones, twos or flocks (up to 80). Lightly wooded country (especially mulga and other open scrub) in vicinity of water; attracted to garbage and road-kills. According to A. Robinson, breeding March-September; C/4-6.

## GAZETTEER

Latitudes are south and longitudes east.

They are taken at the termination of watercourses, at the homesteads of sheep and cattle stations, and at the centre of other features.

- |                                   |                                   |                                 |
|-----------------------------------|-----------------------------------|---------------------------------|
| Abydos 21.25, 118.55              | Coppins 20.45, 120.11             | Hammersley Range 22.30, 118.00  |
| Airlie I. 21.20, 115.10           | Coral Bay 23.08, 113.46           | Hardey River 22.45, 116.07      |
| Angel I. 20.30, 116.48            | Cossack 20.41, 117.11             | Harding River 20.42, 117.11     |
| Ashburton Downs 23.23, 117.02     | Cowra 22.20, 118.59               | Henry River 22.40, 115.40       |
| Ashburton River 21.42, 114.56     |                                   | Hermite I. 20.28, 115.32        |
|                                   | Dales Gorge 22.30, 118.35         | Hillside 21.43, 119.24          |
| Balfour Downs 22.48, 120.52       | Dampier 20.40, 116.43             | Hooley 21.53, 118.12            |
| Balla Balla 20.40, 117.46         | Dampier Archipelago 20.30, 116.40 |                                 |
| Ballin Billin Creek 21.58, 120.52 | Dampier Saltworks 20.45, 116.40   | Jarman I. 20.40, 117.13         |
| Balmoral 21.09, 116.07            | Deepdale 21.43, 116.11            | Jiggalong 23.21, 120.47         |
| Banningarra Spring 20.02, 119.41  | DeGrey HS 20.11, 119.11           | Juna Downs 22.53, 118.29        |
| Barlee Range 23.30, 116.05        | DeGrey River 19.58, 119.09        | Junction Well 22.44, 121.10     |
| Barradale 22.52, 114.57           | Delambre I. 20.27, 117.03         | Jundelaya Hill 22.33, 115.22    |
| Barrow I. 20.47, 115.25           | Depuch I. 20.38, 117.44           |                                 |
| Bedout I. 19.35, 119.06           | Devil Creek 20.50, 116.26         | Kangan 21.06, 118.31            |
| Bellary Creek 23.11, 117.42       | Direction I. 21.32, 115.07        | Karratha 20.43, 116.51          |
| Bessieres I. 21.32, 114.45        | Divide Creek 23.35, 118.17        | Karratha HS 20.53, 116.40       |
| Bezout I. 20.33, 117.11           | Dolphin I. 20.29, 116.51          | Kazput Pool 22.59, 117.12       |
| Bluebell I. 20.24, 115.31         | Dorre I. 25.10, 113.05            | Kendrew I. 20.29, 116.32        |
| Bonney Downs 22.10, 119.55        | Double I. 20.45, 115.30           | Kookhabinna Creek 22.57, 115.59 |
| Boodie I. 20.58, 115.20           |                                   | Kooline 22.55, 116.17           |
| Boolgeeda Creek 22.31, 116.37     | East Lewis I. 20.37, 116.39       | Koordarrie 22.17, 115.02        |
| Braeside 21.12, 121.01            | Edmund 23.46, 116.06              | Kurraana Well 22.02, 120.24     |
| Bulgamulgardy Soak 20.13, 121.02  | Eighty Mile Beach 19.37, 121.00   | Kyalina Pool 21.54, 118.09      |
| Bullara 22.41, 114.03             | Elliott, N.T. 17.33, 133.33       |                                 |
| Burrup Peninsula 20.36, 116.48    | Elphick Nob 20.27, 116.37         | Laverton 28.37, 122.24          |
|                                   | Enderby I. 20.36, 116.31          | Learmonth 22.15, 114.05         |
| Callawa 20.38, 120.30             | Ethel Creek 22.54, 120.10         | Legendre I. 20.23, 116.53       |
| Cane River 21.33, 115.22          | Exmouth 21.56, 114.08             | Leslie Saltworks 20.15, 118.56  |
| Cane River HS 22.05, 115.37       | Exmouth Gulf 22.10, 114.20        | Little Rocky I. 21.26, 115.25   |
| Cape Keraudren 19.57, 119.46      |                                   | Locker I. 21.43, 114.46         |
| Cape Lambert 20.36, 117.05        | Forestier Is 20.30, 117.50        | Lockyer Pool 20.59, 117.07      |
| Cape Preston 20.50, 116.12        | Fortescue I. 20.55, 116.02        | Long I. 21.01, 115.51           |
| Cape Range 22.10, 114.00          | Fortescue River 21.01, 116.06     | Lowendal Is 20.39, 115.34       |
| Carawine Gorge 21.29, 121.02      | Frazer I. 22.39, 113.37           | Low Point 21.59, 113.56         |
| Carawine Pool 21.29, 121.02       |                                   | Lyndon River 23.36, 113.53      |
| Cardabia 23.06, 113.48            | Gales Bay 22.30, 114.10           |                                 |
| Cardabia Creek 23.33, 114.03      | Gidley I. 20.27, 116.47           | Maitland River 20.46, 116.31    |
| Cardabia Pool 23.13, 114.07       | Gingin 31.21, 115.53              | Malus I. 20.31, 116.39          |
| Carlindi 20.38, 119.14            | Giralia Bay 22.28, 114.20         | Mandora 19.45, 120.50           |
| Cattle Pool 22.00, 115.34         | Glen Florrie 22.55, 115.59        | Mandora Creek 19.40, 120.51     |
| Chichester Range 22.00, 118.30    | Goldsworthy 20.21, 119.31         | Mandu Mandu Beach 22.09, 113.52 |
| Cockeraga River 21.41, 118.37     | Goodwyn I. 20.32, 116.32          | Mangrove Bay 21.58, 113.57      |
| Coolawanyah 21.48, 117.48         | Great Sandy Desert 21.00, 124.00  | Marble Bar 21.10, 119.44        |
| Coondiner Pool 22.44, 119.39      | Great Sandy Island 21.12, 115.38  | Marrilla 22.58, 114.28          |
| Coongan River 20.31, 119.35       |                                   | Mary Anne Reef 21.16, 115.28    |
| Coppin Pool 22.54, 118.08         | Hammersley 22.17, 117.40          | Maud Landing 23.07, 113.46      |

Menzies 29.41, 121.01  
 Middle I. 20.55, 115.20  
 Mileura 26.22, 117.20  
 Milli Milli Spring 22.46, 118.01  
 Millstream 21.35, 117.04  
 Minderoo 22.00, 115.03  
 Minilya 23.51, 113.58  
 Montebello Is 20.25, 115.33  
 Mt Brockman 22.27, 117.18  
 Mt Brockman HS 22.18, 117.17  
 Mt Bruce 22.36, 118.08  
 Mt Edgar 21.18, 120.05  
 Mt Meharry 22.58, 118.35  
 Mt Newman 23.19, 119.44  
 Mt Trevarton 23.00, 118.15  
 Muccan 20.38, 120.03  
 Mulga Downs 22.06, 118.28  
 Mundabullangana 20.31, 118.03  
 Mushroom I. 20.43, 115.30

Nanjilgardy Pool 23.22, 117.49  
 Nanutarra 22.32, 115.30  
 Newman 23.21, 119.43  
 Nickol Bay 20.40, 116.55  
 Ningaloo 22.42, 113.40  
 North East Regnard I. 20.47, 116.18  
 North Muiron I. 21.39, 114.23  
 North Turtle I. 19.54, 118.55  
 North West Cape 21.47, 114.10  
 North West Island 20.22, 115.31  
 Nullagine 21.56, 120.07  
 Nullagine River 20.42, 120.33

Oakover River 20.42, 120.33  
 Onslow 21.39, 115.07  
 Ophthalmia Range 23.15, 119.35  
 Ord Ranges 20.17, 119.08

Pannawonica 21.39, 116.19  
 Paraburdoo 23.12, 117.40  
 Pardoo 20.07, 119.35  
 Pardoo Creek 20.05, 119.33

Parry Range 22.20, 115.35  
 Passage I. 21.07, 115.47  
 Passage Is 21.05, 115.50  
 Peedamulla 21.51, 115.38  
 Peawah Hill 20.39, 117.56  
 Pelican I. 25.51, 114.01  
 Pelican Pool 21.20, 120.21  
 Petermarer Creek 20.20, 118.47  
 Picard I. 20.41, 117.16  
 Pinanular Pool 20.57, 117.07  
 Point Cloates 22.43, 113.40  
 Point Maud 23.08, 113.45  
 Point Samson 20.37, 117.11  
 Port Hedland 20.18, 118.36  
 Post Office Pool 21.02, 116.06  
 Pyramid 21.02, 117.27

Qualing Pool 22.02, 114.07

Red Hill 21.58, 116.04  
 Regnard Bay 20.49, 116.26  
 Roebourne 20.46, 117.08  
 Rosemary I. 20.29, 116.35  
 Rough Range 22.30, 113.55  
 Round I. 21.39, 114.39  
 Rove Hills Mine 22.04, 120.43  
 Roy Hill 22.38, 119.58

Sable I. 20.35, 117.46  
 Sandfire 19.46, 121.05  
 Shaw River 20.20, 119.17  
 Shay Gap 20.30, 120.10  
 Sherlock River 20.42, 117.36  
 Sholl I. 20.56, 115.53  
 Skull Springs 21.52, 121.01  
 Solitary I. 21.08, 115.50  
 South East I. 20.26, 115.35  
 South Muiron I. 21.41, 114.20  
 Stockyard Creek 23.21, 116.52  
 Strelley 20.27, 119.00

Tabbata Tabbata Creek 20.20, 118.53  
 Talawana (old site) 22.50, 121.10  
 Talga River 20.54, 119.47

Tambourah 21.45, 119.10  
 Tambrey 21.40, 117.36  
 Thevenard I. 21.28, 115.00  
 Tom Price 22.41, 117.47  
 Tommyhawk Creek 22.05, 120.43  
 Toonoonaragee Pool 21.38, 121.07  
 Trimouille I. 20.24, 115.32  
 Turee Creek 23.26, 117.09  
 Turee Creek HS 23.37, 118.40  
 Turner River 20.51, 118.25  
 Two Sisters 21.30, 121.07

Uaroo 22.47, 115.22  
 Ullawarra (old site) 23.17, 116.12

Vlaming Head 21.48, 114.07

Wallal (Downs) 19.46, 120.38  
 Wannery Creek 22.47, 115.43  
 Waranoolar Pool 20.58, 117.06  
 Warrambo 21.38, 115.49  
 Warrawagine 20.51, 120.41  
 Warroora 23.29, 113.47  
 Weeli Wolli Spring 22.55, 119.12  
 Weld I. 21.23, 115.33  
 West Lewis I. 20.35, 116.37  
 Whim Creek 20.50, 117.50  
 Whyjabby Pool 20.54, 116.41  
 Wickham 20.41, 117.08  
 Wickham Creek 22.01, 120.36  
 Winning (Pool) 23.09, 114.32  
 Withnell Bay 20.35, 116.46  
 Wittenoom 22.14, 118.20  
 Wittenoom Gorge 22.19, 118.19  
 Woodie Woodie 21.38, 121.12  
 Woodstock 21.38, 118.57  
 Wyloo 22.42, 116.14

Yannarie River 22.33, 114.50  
 Yanrey 22.31, 114.47  
 Yanyare River 20.50, 116.27  
 Yardie Creek 22.20, 113.49  
 Yarrrie 20.40, 120.12  
 Yule River 20.22, 118.12

## INDEX TO FAMILIES

- ACANTHIZIDAE, p. 48  
ACCIPITRIDAE, p. 18  
AEGOTHELIDAE, p. 40  
ALAUDIDAE, p. 42  
ALCEDINIDAE, p. 41  
ANATIDAE, p. 16  
APODIDAE, p. 40  
ARDEIDAE, p. 13  
ARTAMIDAE, p. 58
- BURHINIDAE, p. 31
- CAMPEPHAGIDAE, p. 44  
CAPRIMULGIDAE, p. 40  
CASUARIIDAE, p. 9  
CHARADRIIDAE, p. 24  
CICONIIDAE, p. 15  
CLIMACTERIDAE, p. 52  
COLUMBIDAE, p. 35  
CORACIIDAE, p. 42  
CORVIDAE, p. 59  
CRACTICIDAE, p. 58  
CUCULIDAE, p. 38
- DAPHOENOSITTIDAE, p. 52  
DICAIEIDAE, p. 52  
DIOMEDEIDAE, p. 9
- FALCONIDAE, p. 21  
FREGATIDAE, p. 13
- GLAREOLIDAE, p. 31  
GRALLINIDAE, p. 57  
GRUIDAE, p. 22
- HAEMATOPODIDAE, p. 24  
HIRUNDINIDAE, p. 42
- JACANIDAE, p. 24
- LARIDAE, p. 32
- MALURIDAE, p. 49  
MELIPHAGIDAE, p. 54  
MEROPIDAE, p. 41  
MONARCHIDAE, p. 46  
MOTACILLIDAE, p. 43
- OCEANITIDAE, p. 10  
ORTHONYCHIDAE, p. 47  
OTIDIDAE, p. 23
- PACHYCEPHALIDAE, p. 44  
PARDALOTIDAE, p. 53  
PELECANIDAE, p. 11  
PHAETHONTIDAE, p. 11  
PHALACROCORACIDAE, p. 12  
PHALAROPODIDAE, p. 31  
PHASIANIDAE, p. 21  
PITTIDAE, p. 42  
PLOCEIDAE, p. 57  
PODARGIDAE, p. 40  
PODICIPEDIDAE, p. 9  
PROCELLARIIDAE, p. 9  
PSITTACIDAE, p. 36  
PTILONORHYNCHIDAE, p. 59
- RALLIDAE, p. 22  
RECURVIROSTRIDAE, p. 30  
ROSTRATULIDAE, p. 24
- SCOLOPACIDAE, p. 26  
STRIGIDAE, p. 39  
SULIDAE, p. 11  
SYLVIIDAE, p. 49
- THRESKIORNITHIDAE, p. 15  
TURNICIDAE, p. 22
- ZOSTEROPIDAE, p. 53

# Guide to Authors

## Subject Matter

Reviews, observations and results of research into all branches of natural science and human studies will be considered for publication. However, emphasis is placed on studies pertaining to Western Australia. Full length papers should not normally exceed 30 typed pages. Short communications should not normally exceed three typed pages and this category of paper is intended to accommodate observations, results or new records of *significance*, that otherwise might not get into the literature, or for which there is a particular urgency for publication. All material must be original and not have been published elsewhere.

## Presentation

Authors are advised to follow the layout and style in the most recent issue of the *Rec. West. Aust. Mus.* including headings, tables, illustrations and references.

The title should be concise, informative and contain key words necessary for retrieval by modern searching techniques. Names of new taxa must not be included. An abridged title (not exceeding 50 letter spaces) should be included for use as a running head.

An abstract must be given in full length papers but not short communications, summarizing the scope of the work and principal findings. It should normally not exceed 2% of the paper and should be suitable for reprinting in reference periodicals. Contrary to Recommendation 23 of the International Code of Zoological Nomenclature it may include names of new taxa.

Footnotes are to be avoided, except in papers dealing with historical subjects.

The International System of units should be used.

Numbers should be spelled out from one to nine in descriptive text; figures used for 10 or more. For associated groups, figures should be used consistently, e.g. 5 to 10, not five to 10.

Spelling should follow the *Concise Oxford Dictionary*.

Systematic papers must conform with the International Codes of Botanical and Zoological Nomenclature and, as far as possible, with their recommendations.

Synonymies should be given in the short form (taxon, author, date, page) and the full reference cited at the end of the paper.

## Manuscripts

The original and two copies of manuscripts and figures should be submitted to the Editorial Committee, c/- Publications Department, Western Australian Museum, Francis Street, Perth, Western Australia 6000. They must be in double-spaced typescript on A4 sheets. All margins should be at least 30 mm wide. Tables plus headings and legends to illustrations should be typed on separate pages. The desired positions for insertion of tables and illustrations in the text should be indicated in pencil. Tables should be numbered consecutively, have headings which make them understandable without reference to the text, and be referred to in the text.

High quality illustrations are required to size (13.5 cm x 18 cm) or no larger than 32 cm x 40 cm with sans serif lettering suitable for reduction to size. Photographs must be good quality black and white prints, 13 cm x 18 cm (5 inches x 7 inches). If scale line and lettering are required on photographs *do not* place directly on to print. They should be positioned on a clear paper or film overlay. Scale must be indicated on illustrations. All maps, line drawings, photographs and graphs, should be numbered in sequence and referred to as Figure/s in the text and captions. Each must have a brief, fully explanatory caption.

In papers dealing with historical subjects references may be cited as footnotes. In all other papers references must be cited in the text by author and date and all must be listed alphabetically at the end of the paper. The names of journals are abbreviated according to *World List of Scientific Periodicals*. The use of 'unpublished data' or 'personal communication' is discouraged.

## Processing

Papers and short communications are reviewed by at least two referees and acceptance or rejection is then decided by an editorial committee.

The senior author is sent two sets of galley proofs (one to be retained) and one set of page proofs which must be returned promptly.

The senior author will receive fifty free offprints of the paper. Additional offprints can be ordered at page proof stage.